+ ZP 1637 977 0016

DATE DUE

FEB 01 1995

Printed
in USA

RECEIVED
OCT - 1994
PERIODICALS DEPT.
Irvine Sullivan Ingram Library
CARROLLTON, GEORGIA

WEST GEORGIA COLLEGE

STUDIES IN THE SOCIAL SCIENCES

Volume XVI June, 1977

# ESSAYS ON THE HUMAN GEOGRAPHY OF THE SOUTHEASTERN UNITED STATES

RECEIVED
NOV 03 1977
REFERENCE DEPARTMENT
LIBRARY

Published By

WEST GEORGIA COLLEGE

A Division of the University System of Georgia

CARROLLTON, GEORGIA

Digitized by the Internet Archive
in 2011 with funding from
LYRASIS Members and Sloan Foundation

http://www.archive.org/details/westgeorgiacolle1620unse

Volume XVI June, 1977

# ESSAYS ON THE HUMAN GEOGRAPHY OF THE SOUTHEASTERN UNITED STATES

## CONTENTS


| | | Page |
|---|---|---|
| Contributors | | iii |
| Foreword | *John C. Upchurch* | v |
| Preface | *David C. Weaver* | vi |
| Agrarian Progress in the Cherokee Nation Prior to Removal | *Douglas C. Wilms* | 1 |
| Delicate Space: Race and Residence in Charleston, South Carolina, 1860-1880 | *John P. Radford* | 17 |
| The Declining Small Southern Town | *Charles F. Kovacik* | 39 |
| Migration Patterns of Atlanta's Inner City Displaced Residents | *Frank V. Keller, Sanford H. Bederman, and Truman A. Hartshorn* | 49 |
| Georgia's Crenelated County Boundaries | *Burke G. Vanderhill and Frank A. Unger* | 59 |
| The Northern Neck of Virginia: A Tidewater Grain-Farming Region in the Antebellum South | *James B. Gouger* | 73 |

# TITLES IN PRINT

Vol. II, 1963, *Georgia in Transition.*

Vol. III, 1964, *The New Europe.*

Vol. IV, 1965, *The Changing Role of Government.*

Vol. V, 1966, *Issues in the Cold War.*

Vol. VII, 1968, *Social Scientists Speak on Community Development.*

Vol. VIII, 1969, *Some Aspects of Black Culture.*

Vol. XI, 1972, *Georgia Diplomats and Nineteenth Century Trade Expansion.*

Vol. XII, 1973, *Geographic Perspectives on Southern Development.*

Vol. XIII, 1974, *American Diplomatic History: Issues and Methods.*

Price, each title, $2.00

Vol. XIV, 1975, *Political Morality, Responsiveness, and Reform in America.*

Vol. XV, 1976, *The American Revolution: The Home Front.*

Price, each title, $3.00

Copyright © 1977, West Georgia College

Printed in U.S.A.

Thomasson Printing Co., Carrollton, Georgia 30117

Price, $3.00

*West Georgia College is an*
*Affirmative Action/Equal Opportunity Employer*

# CONTRIBUTORS

BEDERMAN, SANFORD H., received the Ph.D. degree from the University of Minnesota and is presently Professor of Geography at Georgia State University. He has received grants from the National Science Foundation and the Rockefeller Foundation to conduct research in Africa. His articles on urban spatial problems have appeared in the *Annals,* Association of American Geographers, the *Southeastern Geographer,* and *The Atlanta Economic Review.*

GOUGER, JAMES B., received the M.A. and Ph.D. degrees in Geography from the University of Florida. His teaching and research interests include cartography and remote sensing, as well as the historical geography of the upper South. He is presently Assistant Professor of Geography at Mary Washington College, Fredericksburg, Virginia, and is the editor of *The Virginia Geographer.*

HARTSHORN, TRUMAN A., is an Associate Professor of Geography at Georgia State University. He has published articles on urban housing, commercial activity, and transportation in the *Annals,* Association of American Geographers, *Geographical Review, Journal of Geography,* and *Journal of High Speed Ground Transportation.* He is the author of *Metropolis in Georgia: Atlanta's Rise as a Major Transaction Center* and received the Ph.D. from the University of Iowa.

KELLER, FRANK V., is an urban planner with the City of Atlanta Bureau of Planning, and is a part-time instructor in the Department of Geography, Georgia State University. He holds the M.A. degree in geography from Georgia State University.

KOVACIK, CHARLES F., holds the Ph.D. degree in Geography from Michigan State University. He has read papers at various conferences and has published in the *Annals,* Association of American Geographers. His research interests center around aspects of the historical geography of the U.S. South, and South Carolina in particular. Dr. Kovacik is presently Associate Professor of Geography at the University of South Carolina, Columbia.

RADFORD, JOHN P., received his Ph.D. in Geography from Clark University in 1974. He is the author of recent articles in the *South Carolina Historical Magazine* and the *Journal of Historical Geography,* and is currently an Assistant Professor of Geography at York University, Toronto.

UNGER, FRANK A., is Associate Director of the Florida Resources and Environmental Analysis Center at Florida State University. He holds the M.S. degree in Geography from FSU.

VANDERHILL, BURKE G., is Professor of Geography at Florida State University. He holds the Ph.D. degree from the University of Michigan and his articles have appeared in such journals as *Annals,* Association of American Geographers, *Economic Geography, Journal of Geography, Southeastern Geographer, Canadian Geographer, Canadian Geographical Journal,* and *Geografisch Tijdschrift.*

WILMS, DOUGLAS C., is Associate Professor of Geography at East Carolina University. He received the Ph.D. degree from the University of Georgia. His articles have appeared in *The Journal of Geography, Southeastern Geographer,* and *The Chronicles of Oklahoma.*

# FOREWORD

This volume continues the precedent of utilizing the services of a volume editor working under the loose supervision of a general editor, a policy initiated with the 1973 issue of *Studies in the Social Sciences.* Responsibility for selecting the theme of the present volume, the papers herein included, and initial editorial refinement was that of the volume editor. The role of the general editor was limited to broad consultation with the volume editor, final editing, and liaison with the printer.

Volume topics for the past five issues of *Studies* have rotated among various social science disciplines. This year's issue rotated to the Department of Geography, and it was the decision of the volume editor to produce an issue in which scholars explore a variety of geographically significant themes, all tied together by their regional foci on the southeastern United States.

As in the past, this journal is financed partially by The University System of Georgia. It is distributed gratis to libraries of state supported colleges and universities in Georgia and to selected institutions of higher education in each southern state. Interested individuals or libraries may purchase copies for $3.00 to help defray printing and mailing costs. Standing orders for the series are available at reduced rates.

It is with considerable pleasure that we submit to you this volume on geographical aspects of the southeastern United States.

John C. Upchurch
Professor and Chairman
Department of Geography
*General Editor*

# PREFACE

This volume is the second of the West Georgia College *Studies in the Social Sciences* series devoted to aspects of the geography of the southeastern United States. The preceding issue, published in 1973 and titled *Geographic Perspectives on Southern Development,* received favorable comment and subscription. Its success has encouraged production of this second volume with a similar regional and topical focus.

As was the case with the earlier issue, and as the title indicates, the current volume comprises a collection of essays by professional geographers with a primary regional research interest in the southeastern United States. The majority of the authors have lived in the South for a considerable period of time, most of them in the precise areas about which they are writing, and they can be considered authorities in their particular field of study. A glance at the contents shows that the specific topics of individual contributors are extremely varied. This is to a large extent a result of decisions by the editors to attempt to compile a broadly based assemblage with topical, spatial, and temporal balance.

While the emphasis of the collection is on case studies of particular relevance to the human geography of the southeastern states, each of the essays in the volume was included because of potential significance to research outside the southern region. Wilms' article on the agriculture of the Cherokee Nation is of consequence to any enquiry concerned with the cultural adaptation of aboriginal societies to European expansion in North America. Radford's study of residential discrimination in post Civil War Charleston has reference and relevance to many of the prevailing concepts on the nature of the urban spatial structure. Kovacik, in his analysis of Fort Motte, South Carolina, investigates a complex set of problems which are endemic to much of rural America. In their study of Atlanta's displaced residents, Keller, Bederman, and Hartshorn are able to substantiate contemporary urban migration theories with their findings. Vanderhill and Unger, in a discussion of some unique aspects of county boundary lines in Georgia, provide further insight into the way in which land subdivision has affected the pattern of political boundaries in the United States. In the concluding article on wheat growing in Tidewater Virginia, Gouger illustrates how the interacting processes of physical environment, market demand, and technical innovation influence fluctuations in the production patterns of agricultural regions.

As a whole, the collection indicates both the variety of possibilities for geographic research on the South and the increasing attention being paid by professional geographers to this particular region. Although the southeast was one of the earliest settled sections of North America,

there is in general a poorly developed literature on the geography of the area. It is hoped that this volume will help, in some small way, to remedy this deficiency.

David C. Weaver
Associate Professor of Geography
*Volume Editor*

# AGRARIAN PROGRESS IN THE CHEROKEE NATION PRIOR TO REMOVAL

By Douglas C. Wilms

Although there is a growing interest among researchers in matters concerning the American Indian, there have been relatively few historical studies aimed at evaluating early Indian settlement patterns and land use. Writings on any Indian group have usually taken one of two approaches—either the ethnological approach, which stresses cultural factors, or the historical approach, which tends to emphasize the political and economic relations between Indians and whites.[1] This study deals with the changes the Cherokee Indians made in their approach to land use after European contact. It is especially concerned with the agrarian progress they made in light of these changes.

The earliest records indicate that the Cherokee Indians originally occupied vast stretches of land in an area bordered by the Ohio and Tennessee Rivers on the north and west, and by the southern Piedmont on the east. In the south their territory extended to lands in present-day Alabama, Georgia, and South Carolina.[2] At the close of the American Revolution their more constricted territorial boundaries included lands in only four southeastern states (Figure 1).

At the time of European contact, the Cherokees were primarily sedentary agriculturalists whose numerous towns were usually located along streams scattered throughout the valleys of the southern Appalachians.[3] In addition to their riverine agriculture, the Cherokees' subsistence economy consisted of hunting, fishing, and gathering. The extensive woodlands surrounding their settlements were used for hunting with buffalo, deer, and bear being the principal large game in the area. Animal domestication was limited to the dog.[4]

Fields to be prepared for cultivation were cleared by girdling and subsequent burning of trees and undergrowth. John Adair, a trader who lived among the Cherokees in the 1730s, commented upon this procedure:

> . . . to a stranger, this may seem to be a lazy method of clearing the wood-lands; yet it is the most expeditious method they could have pitched upon, under their circumstances, as a common hoe and a small hatchet are all their implements for clearing and planting.[5]

Corn was the chief cultivated crop with beans and squash being nearly as important. In addition, peas, pumpkins, melons, strawberries, wild potatoes, and tobacco were raised. A limited number of hand tools such as the hoe and pointed stick were used for cultivation. The hoe blade usually consisted of animal bone, wood, stone, or shell.[6]

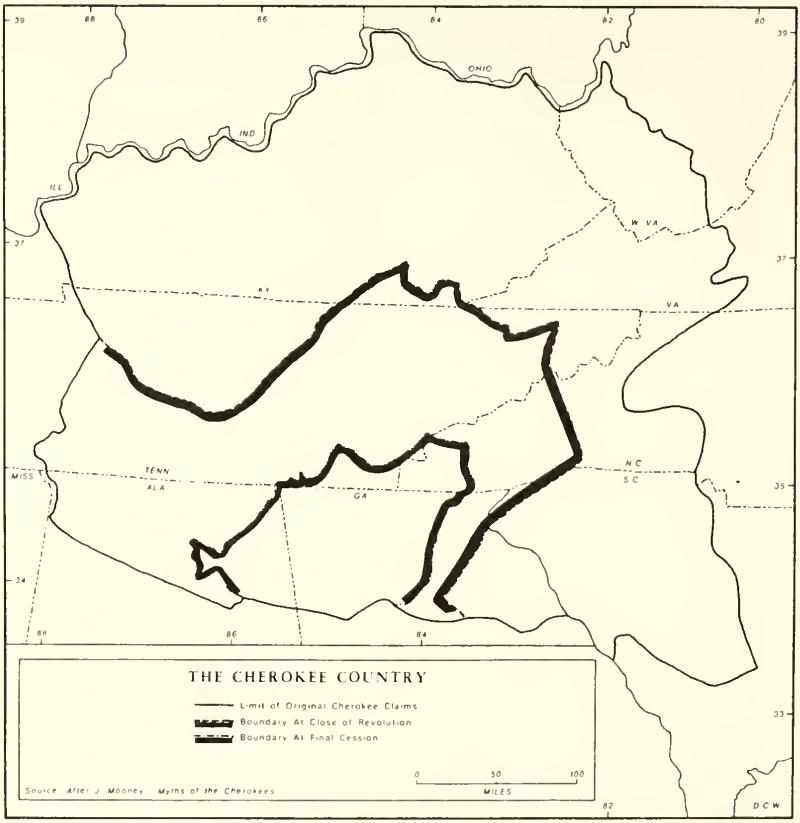



Figure 1

Louis De Vorsey, in his work on the southern Indian boundary, noted that even as late as the mid-eighteenth century the Indian male often spoke unfavorably of agricultural pursuits in his public utterances "... and credited only warfare and hunting as fit undertakings for a man."[7] While Cherokee men may have preferred hunting and warfare, they did play an active role in agriculture. Normally they participated in the heavier aspects of clearing fields, planting, and harvesting. Weeding and protection of plants from birds and scavengers were tasks assigned to women, children, and older men. Most hunting took place during the summer after crops had been planted and during the fall and winter months after the harvest. It has been suggested that the Cherokees' eventually successful assimilation of the white man's agricultural techniques stems from this early preadaptation to farming.[8]

Beginning in the early eighteenth century, the Cherokees came into increasing contact with white traders, soldiers, and settlers along the eastern borders of their country. Continued culture contact appears to

have led many Cherokees to adopt a number of European culture traits and, at the same time, to modify a number of their own. Within one century these steps toward acculturation produced an amazing number of changes in both the Cherokee society and the tribe's cultural landscape. It was not until the period between 1790 and 1830 that the full effect of acculturation manifested itself in a new approach to agriculture and land use. These new developments particularly reflected the influences of government agents and missionaries, each of which made their own unique contribution to the acculturation process.

The earliest formal attempt of the Federal government to institute a "civilizing" policy toward the Cherokees resulted from the Treaty of Holston in 1791. Article 14 of the treaty stipulated:

> That the Cherokee nation may be led to a greater degree of civilization, and to become herdsmen and cultivators, instead of remaining in a state of hunters, the United States will from time to time furnish gratuitously the said nation with useful implements of husbandry and further to assist the said nation in so desirable a pursuit, and at the same time to establish a certain mode of communication, the United States will send such and so many persons to reside in said nation as they may judge proper, not exceeding four in number, who shall qualify themselves to act as interpreters. . . .[9]

Many Cherokees had expressed an interest in receiving the type of aid outlined in the Treaty of Holston. In his capacity as a treaty commissioner, Benjamin Hawkins wrote to the Secretary of War in 1785 that, "some of the women have lately learnt to spin, and many of them are very desirous that some method should be fallen on to teach them to raise flax, cotton, and wool, as well to spin and weave it."[10] Chief Bloody Fellow of the Cherokee nation conferred with the Secretary of War in 1792 and expressed his desire for ". . . ploughs, hoes, cattle, and other things for a farm; this is what we want; game is going fast away from among us. If these things could be sent us next season, it would be a great service to us."[11]

Agrarian reform was subsequently encouraged in 1793 when Congress began annually to appropriate funds for the purchase of livestock and tools for the Indians. It was felt such gifts would help create a desire for private property and in turn bring about a basic change in the Indian economy. It was also hoped such changes would mean that the Indians would be content with less land.[12]

Pursuant to the Treaty of Holston, Indian agents had been appointed to live among the Cherokees and perform liaison tasks between the tribe and the Federal government. Benjamin Hawkins, as agent for the Southern Indians, passed through the Cherokee country in the autumn of 1796. Hawkins had a keen eye for signs of Indian progress

and recorded his observations as he travelled. The following excerpts portray not only some of the changes that had taken place, but also the continued desire, especially on the part of women, to make additional improvements:

November 26 I met two Indian women on horseback, driving ten very fat cattle to the station for a market.

November 30 They (Indian women) informed me that the men were all in the woods hunting, that they alone were at home to receive me, that they rejoiced much at what they had heard and hoped it would prove true, that they had made some cotton, and could make more and follow the instruction of the agent and the advice of the President.

December 1 They (two women) told me that they would make corn enough but that they never could sell it. That they were willing to labour if they could be directed how to profit by it.

December 3 The old fellow lives well, the land he cultivates is lined with small growth of saplins for some distance, his house is comfortable, he has a large stock of cattle, and some hogs. He uses the plow.[13]

Other observers also noticed the changes taking place in Cherokee agriculture and land use. Two Moravian missionaries, Abraham Steiner and Frederick von Schweinitz, journeyed through the Cherokee country in 1799 seeking to establish a mission station. They wrote that the Cherokees:

> . . . had greatly increased in culture and civilization in the last few years; that in course of last summer 300 plows and as many pairs of cotton cordingcombs had been sent to this nation and they had begun to devote themselves to agriculture and the raising of cotton; had several times brought cotton for sale and they had themselves begun to spin and to weave. . . .[14]

The two Moravians also observed that the inhabitants of the area were well supplied with all forms of livestock and poultry. Some produce was sold to local garrisons and droves of hogs were bought and driven out of the Cherokee nation.[15]

In addition to playing important roles in treaty formation and land cessions, government agents distributed annuities and gifts to the Indians. The efforts of Silas Dinsmoor, an agent to the Cherokees, illustrate the benign philosophy of the Federal government at this time. Dinsmoor had been credited with inducing many Cherokees to plant cotton and with teaching the women how to spin and weave the fibers.[16] Charles Hicks, a well-educated Cherokee chief, acknowledged his

tribe's indebtedness to Dinsmoor in a letter he wrote in 1819 to the famous American geographer, Jedidiah Morse. He stated that the "Cherokees had already with stimulus spirits, entered the manufacturing system in cotton clothing in 1800 which had taken rise in one town in 1796 or 7, by the repeated recommendation of Silas Dinsmoor, Esq. which were given to the Chiefs in Council."[17]

Much of the progress in agricultural development was verified eighteen years after the Holston Treaty when a systematic census was taken under the auspices of the Cherokee Indian Agent, Return Jonathan Meigs.[18] Meigs was appointed Cherokee Indian agent in 1801. This Revolutionary War veteran accepted the position at age 60 and continued to work among the Cherokees until his death in 1823. He was active in promoting stock-raising, agriculture, and industry. In his capacity as Cherokee agent he granted money to schools and distributed tools, implements, and advice to the Cherokees.

His report of the 1809 census revealed there were 12,395 Cherokees, 583 Negro slaves, and 341 whites living in the nation. The number and value of the "principal articles" were itemized as follows:[19]

| | |
|---|---|
| 6519 horses at $30 each | $195,570 |
| 19,165 black cattle at $8 each | 153,320 |
| 1037 sheep at $2 each | 2,074 |
| 19,778 swine at $2 each | 39,556 |
| 13 grist mills at $260 each | 3,380 |
| 3 saw mills at $500 each | 1,500 |
| 30 wagons at $40 each | 1,200 |
| 583 negro slaves at an average of $300 each | 174,900 |
| | $571,500 |

The following items also were enumerated as part of the census:

| | |
|---|---|
| 1592 spinning wheels | 1 powder mill |
| 429 looms | 49 silver smiths |
| 567 ploughs | 5 schools |
| 2 saltpetre works | 94 children in school |

Meigs' census, taken eighteen years after the Holston Treaty, attests to the degree of progress that had taken place during that brief period. Cherokee youth were attending school and some natives were learning trades. Plows were seen on an ever-increasing number of farms, while horses, cattle, swine, and sheep each numbered in the thousands. Spinning wheels and looms were common-place items to many of the women who produced cotton cloth. Total value of these improvements, as they were termed, was in excess of one-half million dollars. The census report stated that the improvements and property acquired "... has principally been done since 1796." Thus, within little more than a decade, many Cherokees had acquired through initiative and annuities the skills, tools, and livestock necessary to establish the foundations of an agrarian economy.

Agrarian progress continued into the 1820s and was widely reported by government officials and missionaries, as well as by the Cherokees. In 1820 Secretary of War John C. Calhoun sent to the House of Representatives a report on the Indian tribes of the United States that had progressed in agriculture, industry, and "civilization". Of the entire group, he could report that "the Cherokees exhibit a more favorable appearance than any other tribe of Indians."[20]

In 1822 Rev. Abraham Steiner noted the changes that had taken place during the first two decades of the nineteenth century:

> Just twenty years ago I first saw and visited them; and I can assure you, sir, though I had expected to see some signs of civilization among them, that it far surpassed my expectations, comparing the people with the state I first saw them in. Many of their youths can read and write; and I found among them, more especially half-breeds, as much knowledge as is commonly met with in persons of the same grade in civilized life.[21]

Much of the above progress was verified in 1824 when the Cherokees themselves took a census of their nation.[22] Information from this census is listed with similar material from the earlier ones taken by Meigs in 1809 (Table 1). If these data are assumed to be essentially correct, a significant number of changes had taken place during the fifteen years between censuses. The native population numbered 14,283 while the number of slaves reached 1,277, an increase of 119 percent. More children were attending private and mission schools. Some Cherokees owned and operated grist and saw mills, while spinning wheels appear to have been found in virtually every Cherokee home. On the farms, the number of plows in the nation had risen by 416 percent, and domesticated horses, cattle, swine, sheep, and goats totaled 79,942, an increase of 72 percent. Stores, blacksmith shops, and even a threshing machine were in operation. The character of the material goods possessed by the Cherokees clearly suggests that, by the mid-1820s, they were becoming a nation of farmers.

Cherokee progress was accelerated in 1821 by Sequoyah's momentous invention of an eighty-six chapter syllabary.[23] Within months of the introduction of Sequoyah's system of writing the Cherokee tongue, many Cherokee could read and write their own language. The significance of the syllabary to Cherokee education, agrarian progress, and "civilization" was quickly recognized. At New Echota, the capital of the nation, the Cherokee Council resolved in October, 1827 to establish a weekly newspaper entitled the *Cherokee Phoenix*. Sequoyah's characters were cast into type, printing supplies were purchased, and the first copy of the *Phoenix* was issued on February 21, 1828. Elias Boudinot, a prominent Cherokee who played a leading role in his nation's history, served as the influential organ's energetic editor.[24] Well-

educated and articulate, he championed the Cherokee cause both as a private citizen and as the editor of the *Phoenix.*

Each issue of the *Cherokee Phoenix* appeared in both Cherokee and English. Articles in the newspaper dealt with the Cherokee language, tribal government, federal and state relations, religion, and news of other tribes as well as foreign countries. It also contained articles on agricultural improvements. Some of these dealt with the treatment of cattle diseases, butter making, fattening swine, and planting potatoes.[25]

TABLE 1

CHEROKEE NATION INTER-CENSUS CHANGES, 1809-1824

| | Meigs' Census of 1809 | Cherokee Nation Census of 1824 | Percent of Change 1809-1824 |
|---|---|---|---|
| Population[a] | 12,395 | 14,283 | 15 |
| Negro Slaves | 583 | 1,277 | 119 |
| Whites | 314 | 215 | −29 |
| Schools | 5 | 18 | 260 |
| Students | 94 | 314 | 234 |
| Grist Mills | 13 | 36 | 177 |
| Saw Mills | 3 | 13 | 333 |
| Looms | 429 | 762 | 78 |
| Spinning Mills | 1,572 | 2,486 | 58 |
| Wagons | 30 | 172 | 473 |
| Ploughs | 567 | 2,923 | 416 |
| Horses | 6,519 | 7,683 | 18 |
| Black Cattle | 19,165 | 22,531 | 18 |
| Swine | 19,778 | 46,732 | 136 |
| Sheep | 1,037 | 2,566 | 147 |
| Goats | • • | 430 | • • |
| Blacksmith Shops | • • | 62 | • • |
| Stores | • • | 9 | • • |
| Tan-Yards | • • | 2 | • • |
| Powder Mill | 1 | 1 | • • |
| Threshing Machine | • • | 1 | • • |

[a]These figures include only Cherokees.

Source: Cherokee Censuses of 1809 and 1824.

The noted missionary, Samuel Worcester, wrote in 1830 that agriculture was the principal employment and support of the Cherokee people. He suggested that hunting as a way of life had been completely abandoned. With regard to those who lived by the chase he wrote, "I certainly have not found them, not even heard of them, except from the floor of Congress, and other distant sources of information.[26]

In December, 1830, a group of resident missionaries met at New

Echota and issued a statement which included a thorough report on agricultural progress. It noted that:

> Thirty years ago a plough was scarcely seen in the nation. Twenty years ago there were nearly 500. Still the ground was cultivated chiefly by the hoe only. Six years ago the number of ploughs, as enumerated, was 2,923. Among us all, we scarcely know a field which is now cultivated withough ploughing.[27]

Progress also had been made in industry and commerce. The natives recognized the value of skilled labor and, in 1810, the Cherokee Council unanimously agreed to allow white craftsmen to reside in the nation.[28] By 1824 there were 62 blacksmith shops, 9 stores, 2 tan-yards, and 1 powder mill in the country. A Cherokee law of 1825 encouraged the residence of mechanics who would train native apprentices. Upon completion of training, the youths' tools and equipment were to be furnished by the Council.[29] Within a decade the number of resident mechanics rose to 337.[30]

Grist and saw mills were built by the government, missionaries, and individual Cherokees. Increasing numbers of mills reflected the growing use of the plow and agricultural expansion. Increased corn production necessitated more grist mills, while lumber for fences, flooring, and construction purposes created a similar demand for saw mills (Table 1).

Trade and commerce were facilitated by the numerous roads that traversed the nation (Figure 2). Most of these were built by the United States under the Treaty of 1816, which also gave the Federal government the right to free navigation of all rivers within the Cherokee

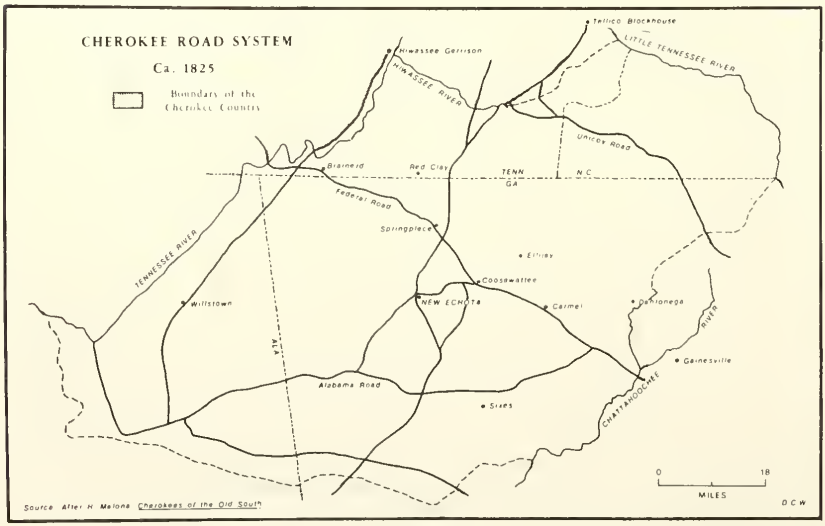



Figure 2

nation.[31] These roads not only allowed the Cherokees to ship surplus agricultural products out of the area, but also permitted travelers and drovers to cross the Cherokee nation on their way to neighboring states. Surplus corn and livestock raised by the Cherokees usually were sold in neighboring Tennessee, Georgia, and South Carolina.[32]

Thousands of hogs, cattle, horses, and mules were annually driven from Tennessee and Kentucky to eastern markets in the early 1800s. There was also an internal demand for livestock in the Southeast. In 1836, an estimated 40,000 hogs were driven to food-deficit cotton-producing areas in middle Alabama and Georgia.[33] Many drovers from Tennessee and Kentucky passed through the nation on their way to these states and their herds consumed vast amounts of corn at various Cherokee-owned public houses or "stock stands" along the way. A drove of hogs may have varied from several hundred to several thousand head and could travel an estimated eight to twelve miles each day, and perhaps more, depending on the size of the herd. On the average, approximately 24 bushels of corn were consumed daily for each 1,000 hogs.[34] A number of Cherokees established taverns and "stock stands" along the roads used by drovers and thus profited from the traffic.

Cherokee trade was generally restricted to the sale of corn, livestock, and domestic hides. Although most cotton was used for domestic purposes, some was shipped from the nation to neighboring states and by boat down the Tennessee and Mississippi rivers to New Orleans.[35] Most trade, however, was overland with adjacent states. Dr. Butler, a missionary at Hiwassee, Georgia, wrote that many Cherokees, including full bloods, raised meat and corn for sale. He observed:

> Last season, while travelling on the frontiers of Georgia, I well recollect seeing wagon loads of corn going from the nation to the different states. Droves of beef cattle and hogs are driven annually from this nation to different states. A few weeks since, not less than 200 beeves were driven from this vicinity to the northern market; and I think as great numbers were collected in previous years.[36]

Another observer, presumably Elias Boudinot, editor of the *Cherokee Phoenix*, provided a similar observation which appeared in 1831:

> It is supposed that not less than one thousand beeves will be driven from the Nation for the northern markets this season, besides those taken into Georgia and South Carolina. Those for the north are bought by Tennesseeans, not from the half breeds only but (as the expression is) from the common Indians. This fact perhaps may give some of our distant readers a little light as to the condition of the Cherokees who were said to be long since on the point of starvation, most of them subsisting on sap and roots.[37]

An anonymous resident of the Carmel Mission wrote a penetrating letter on the agrarian and commercial progress made by the Cherokees at this time. Although the following extract is lengthy, it is included here because it demonstrates the degree to which the Cherokees had become involved in commercial activities by 1830:

> It has been said and reiterated in the ear of the public, that the game of the Indians is principally gone, that they are an idle, intemperate race, that they never can be effectually taught industrious and sober habits; and that so large a portion of them are now in actual want, that the cause of humanity calls to better their condition. I am aware that these and similar statements have been already known relative to the situation of the Cherokeees and consequently that every item of information on this subject, may in some way subserve the course of justice and truth.
>
> There are three or four public roads leading from Georgia to Tennessee through this nation. These roads are much travelled. Besides persons on ordinary business, may be seen drovers with large numbers of horses, mules and hogs, passing from Kentucky and Tennessee to Georgia. While in this nation these animals consume vast quantities of corn and other provisions, and yet they are supplied almost exclusively from the products of this country. Thousands of bushels of corn are sold by natives every year, which are raised by full Cherokees, to travellers and drovers. Within two miles of my residence are two public houses, owned and kept by natives. To my own personal knowledge, large droves of horses and hogs are very frequently supplied with corn for the night at each of these taverns. I have known as many as 1,400 hogs and their drivers to be supplied at the same time at one of these houses. Nor are instances of this kind rare. A part of the corn sold at these public houses is raised by their owners, and a part purchased of full Cherokees.
>
> Their sales are not, however, confined to the single article of corn. Large numbers of cattle and hogs are sold by them every year to citizens of Georgia and other states. Large droves of cattle purchased in this nation are driven annually to Virginia, and some are taken and sold in the Pennsylvania markets. I am personally acquainted with individuals engaged in this business. Cattle raised in this nation, I am informed, are sold in markets as far distant as Philadelphia, in the State of Pennsylvania.
>
> Wheat is also raised in some parts of this nation. As many as five or six of my own neighbors have procured good crops of this valuable article the present season. This wheat is floured at a mill owned by natives. I have seen of the flour, and hesitate

not in saying that it would be considered merchantable in any market.

Another fact worthy of mention is that from a single Indian town, called Ellijay, fourteen miles from this place, were conveyed, during the summer of 1829, seventeen or eighteen loads of corn averaging from thirty to thirty-five bushels each. This corn was purchased by inhabitants of Georgia, and carried on wagons seventy miles to some of the counties of that state contiguous to this nation. It passed my own dwelling on its way to Georgia.

If the Cherokees can sell hundreds of cattle and hogs annually, and annually part with thousands of bushels of corn to travellers, and if seventeen or eighteen loads of it can be spared from a single Indian town, does the cause of humanity call for their removal to the howling deserts of the west, to prevent them from perishing from want? The facts I have mentioned show moreover that corn, and beef, and pork can be obtained here on cheaper terms than in neighboring counties of Georgia. If it be not so, how, I ask, can purchasers of these articles afford to buy and convey them seventy miles or upwards either for their own use or for the purpose of selling them again? If it be true then that the game of the Indian is gone, let it not be forgotten that he has a more valuable substitute for his support.[38]

The fate of the Cherokees was sealed when Congress passed the hotly-debated Indian Removal Bill on May 28, 1830. Until their final expulsion in 1838, however, most Cherokees resisted all efforts made toward their removal. In general, the early 1830s was a period of turmoil and confusion for the Indians. In an attempt to identify and enumerate characteristics of the Indian population, land-holdings, and agriculture, United States government officials took a census of the Cherokee Nation in 1835. This census was the most comprehensive and complete inventory of the Cherokees taken to that date.[39]

At the time the census was taken the Cherokees occupied lands that are in present-day Georgia, North Carolina, Tennessee, and Alabama. The largest portion of the nation was to be found in Georgia. In addition to having vast expanses of fertile Piedmont and Ridge and Valley lands, Cherokee Georgia was the site of New Echota. Moreover, it was crossed by many miles of road, thus making it one of the most accessible areas of the nation to those Cherokees desirous of settling these lands. More than half of the Cherokees and a significant number of slaves and intermarried whites lived in present-day Georgia (Table 2). Although the 1835 Census shows that the number of white residents had declined since the Census of 1824 was taken, both Cherokees and Negro slaves continued to increase in number.

TABLE 2

POPULATION DISTRIBUTION IN THE CHEROKEE NATION, 1835

| | Cherokees | Negro Slaves | Intermarried Whites |
|---|---|---|---|
| Georgia | 8,936 | 776 | 68 |
| North Carolina | 3,644 | 37 | 22 |
| Tennessee | 2,528 | 480 | 79 |
| Alabama | 1,424 | 299 | 32 |
| TOTAL | 16,532 | 1,592 | 201 |

Source: Cherokee Census of 1835

It is unfortunate that livestock were not listed in the Census of 1835. A number of other enumerations, however, give us a clearer picture of the agrarian advances made by a people who had only recently adopted the use of the plow. The increasing use of the plow meant that more land was continually brought under cultivation. By 1835 more than 3,700 farmers cultivated more than 44,000 acres of land. The nation had 3,120 farms with an average of 14.1 acres under cultivation per farm. A few were much larger and were worked with Negro slaves whose numbers had increased to 1,592 at this time. Corn was the principal crop and in one year more than one-half million bushels were produced.[40] Wheat was much less important and only 2,502 bushels of this grain were raised. The wealthy Cherokee often had an elegant two-story home while poor natives occupied very mean structures. The average home, however, was a comfortable log cabin, modestly furnished, with chimney and wooden floors.[41]

By the mid-1830s, the Cherokees had become a nation of farmers and had progressed far toward developing an agrarian economy and a life-style similar to that of white Americans. Nearly four decades earlier, most Cherokees practiced the traditional hunting-farming economy not unlike that of other aboriginal groups in the southeast. During the eighteenth century most Cherokees continued to adhere to their time-honored subsistence economy. During the last decade of that period, however, and the early decades of the nineteenth century, a number of significant changes had occurred within the Cherokee economy. Contact with traders, missionaries, government agents, and others had taught the Cherokees much about the white man's civilization. More progressive Cherokees realized that both formal and vocational education were necessary to institute the economic changes so necessary to sustenance in an era of rapid game depletion. Encouraged by intermarried whites, mixed bloods, and enterprising full bloods, a number of Cherokees embarked upon the white man's path toward an agrarian way of life.

The Cherokees, more than any other tribe, made great strides toward adopting white agricultural techniques and their cultural landscape was beginning to reflect these changes. Success in establishing farms, making improvements, and over-all progress in "civilization" gave the Cherokee nation a look of permanence that was resented by proponents of Indian removal. For a number of years Georgia had been instrumental in attempting to have the Federal government expel the Cherokees from their lands. Georgia's efforts were heightened in 1828 when gold was discovered in that portion of the Cherokee nation claimed by Georgia. Shortly thereafter Georgia had these lands surveyed in preparation for distribution to its citizens.[42]

With the passage of the Removal Bill, some Cherokees had begun to question the wisdom of a continued fight against the political forces of white Americans. In 1835 a group of influential Cherokees concluded that emigration, with favorable terms, was the only possible alternative available. This group signed the controversial Treaty of New Echota on December 29, 1836.[43] Briefly stated, the treaty provided that the Cherokee Nation cede to the United States its remaining territory east of the Mississippi River for a compensation of five million dollars. The Indians were to be removed at government expense and given a one-year subsistence allowance after they arrived in Oklahoma.

Chief John Ross and his supporters vehemently maintained that the New Echota Treaty was fraudulent and was signed by a minority group who did not represent the wishes of most of the Cherokees. For three years, Ross fought without success to have the treaty nullified. It became law on May 23, 1836, and for the next two years small bands of Cherokees moved west. The final, forced Cherokee removal, called the "Trail of Tears", began in late December, 1838.

## FOOTNOTES

[1] William T. Hogan, *American Indians* (Chicago: The University of Chicago Press, 1961), p. 175.

[2] William H. Gilbert, *The Eastern Cherokees,* Bureau of American Ethnology, Bulletin 133 (Washington, D.C.: Government Printing Office, 1943), p. 178.

[3] Christopher Murphy and Charles Hudson, "On the Problem of Intensive Agriculture in the Aboriginal and Southeastern United States," *Working Papers in Sociology and Anthropology,* University of Georgia, April, 1968, pp. 24-34; Douglas C. Wilms, "Cherokee Settlement Patterns in 19th Century Georgia," *Southeastern Geographer,* Vol. XIV, No. 1, (May, 1974), pp. 46-53.

[4] Gilbert, *The Eastern Cherokees,* p. 185.

[5] Samuel Cole Williams, *Adair's History of the American Indians* (Johnson City, Tenn.: The Watauga Press, 1930), p. 435.

[6] Harold E. Driver, *Indians of North America* (Chicago: The University of Chicago Press, 1961), pp. 45-53.

[7] Louis De Vorsey, *The Indian Boundary in the Southern Colonies, 1763-1775* (Chapel Hill: The University of North Carolina Press, 1966), p. 17.

[8] Raymond D. Fogelson and Paul Kutsche, "Cherokee Economic Cooperatives: The Gadugi," in *Symposium on Cherokee and Iroquois Culture,* ed. William N. Fenton and John Gulick, Bureau of American Ethnology, Bulletin 180 (Washington, D.C.: Government Printing Office, 1961), p. 116.

[9] Quoted in Henry T. Malone, *Cherokees of the Old South* (Athens: The University of Georgia Press, 1956), p. 36.

[10] *American State Papers,* Indian Affairs, I, p. 39.

[11] *Ibid.*

[12] Hagan, *American Indians,* p. 45.

[13] *Letters of Benjamin Hawkins, 1796-1806,* Collection of the Georgia Historical Society, Vol. IX (Savannah, Ga.: The Morning News, 1916), pp. 16-30.

[14] Samuel Cole Williams, *Early Travels in the Tennessee Country* (Johnson City, Tenn.: The Watauga Press, 1929), p. 59.

[15] *Ibid.,* pp. 464-490.

[16] Henry T. Malone, "Cherokee Civilization in the Lower Appalachians, Especially in North Georgia, Before 1830" (unpublished M.A. thesis, Emory University, 1949), p. 47.

[17] Quoted in Grant Foreman, *The Five Civilized Tribes* (Norman: The University of Oklahoma Press, 1934), pp. 352-353.

[18] The complete title of the census is "A General Statistical Table for the Cherokee Nation, Exhibiting a view of their population, and of their improvements in the useful arts, and of their property acquired under the fostering hand of Government, which has principally been done since the year 1796." Original copy housed in the Moravian Archives, Winston-Salem, North Carolina.

[19] *Cherokee Census of 1809.*

[20] *American State Papers,* Indian Affairs, I, p. 200.

[21] *American State Papers,* Indian Affairs, II, p. 278.

[22] *Laws of the Cherokee Nation* (Knoxville, Tenn.: Heiskell and Brown, 1826).

[23] For more detail on the life of this remarkable Cherokee see Grant Foreman, *Sequoyah* (Norman: The University of Oklahoma Press, 1938).

[24] Henry T. Malone, *Cherokees of the Old South* (Athens: University of Georgia Press, 1965), pp. 157-158.

[25] *Cherokee Phoenix,* August 13, 1828; August 20, 1828; October 1, 1828; July 1, 1939.

[26] Jack F. Kilpatrick and Anna G. Kilpatrick, eds., *New Echota Letters* (Dallas: Southern Methodist University Press, 1968), p. 79.

[27] Quoted in Allen Guttman, *States' Rights and Indian Removal: The Cherokee Nation v. The State of Georgia* (Boston: D.C. Heath and Co., 1965), pp. 66-67.

[28] *American State Papers,* Indian Affairs, II, p. 281.

[29] Malone, *Cherokees of the Old South,* p. 144.

[30] *Census of the Eastern Cherokees, 1835,* Bureau of Indian Affairs, Record Group 75, Nation Archives, Washington, D.C.

[31] Charles C. Royce, "The Cherokee Nation of Indians: A Narratiave of their Official Relations with the Colonial and Federal Governments," *Fifth Annual Report, Bureau of Ethnology,* 1883-84 (Washington, D.C.: Government Printing Office, 1887), p. 198.

[32] The driving of hogs to Georgia must have been a profitable venture as early as 1807. At that time the Moravian missionaries at Springplace, Georgia, attempted to buy hogs from their wealthy Cherokee neighbor, Joseph Vann. He refused to sell them any because he was preparing to take a large herd to Georgia. See Bishop Kenneth G. Hamilton, "Minutes of the Mission Conference Held in Springplace," *The Atlanta Historical Bulletin* (Winter 1970), p. 46.

[33] Lewis C. Gray, *History of Agriculture in Southern United States to 1860.* Vol. II, Carnegie Institute of Washington, Publication No. 430 (New York: Peter Smith, 1941), pp. 837-840. An excellent study of pork production in the southern states is found in Sam B. Hilliard, "Pork in the Ante-Bellum South: The Geography of Self-Sufficiency," *Annals,* Association of American Geographers, LIX (September, 1969), pp. 461-480.

[34] Gray, *History of Agriculture,* Vol. II, p. 841.

[35] Gilbert C. Fite, "Development of the Cotton Industry by the Five Civilized Tribes in Indian Territory," *Journal of Southern History,* XV (August, 1949), pp. 343-344.

[36] *Cherokee Phoenix,* September 22, 1830.

[37] *Cherokee Phoenix,* August 27, 1831.

[38] *Cherokee Phoenix,* October 23, 1830.

[39] The record of the Cherokee Census of 1835 is a large and extremely well preserved book housed in the National Archives, Washington, D.C. Each page of the census consists of a series of columns that lists, by individual landholder, such items as the number of slaves owned, acres cultivated, bushels of corn raised, and corn sold. At the left side of the page, the name of each landholder is recorded, along with the name of the water-course adjacent to which he lived.

[40] *Census of the Eastern Cherokees, 1835.*

[41] Kilpatrick and Kilpatrick, *New Echota Letters,* pp. 79-80.

[42] Douglas C. Wilms, "Georgia's Land Lottery of 1832," *The Chronicles of Oklahoma,* Vol. LII, No. 1, (Spring, 1974), pp. 52-60.

[43] Malone, *Cherokees of the Old South,* pp. 180-182.

# DELICATE SPACE: RACE AND RESIDENCE IN CHARLESTON, SOUTH CAROLINA, 1860-1880

By John P. Radford*

American cities have played many roles, but first and foremost they have been the organizing centers of a dynamic and rapidly expanding market economy. The network of U.S. cities is a creature of competitive processes: wholesaling, retailing, industrial entrepreneurship and the provision of a myriad of business and personal services. Within American cities, too, competition for space has been the dominant principle regulating the arrangement of urban functions, including the allocation of residential space.

This study seeks to summarize the intellectual bases of the most seminal interpretation of competitive residential processes in the American city, and to use the insights contained therein as a foil against which to examine residential processes within an alternative version of American urbanism. The alternative examined is one which crystallized in Charleston, South Carolina during the mid-nineteenth century. It is part of the underlying philosophy of the study that one can often gain as much understanding of a situation by investigating its extreme manifestations as by attempting to construct a general model. Further, it is often profitable to examine an institution or a city during periods of crisis or shock, when important but normally hidden elements are exposed to view. Attention will focus upon Chicago and Charleston as epitomes of two American versions of the city, and then upon the period 1860 to 1880 in Charleston during which the residential patterns formed during the antebellum decades were sharply challenged.

The most widely influential attempt to explain residential patterns in U.S. cities is the model published in 1925 by E. W. Burgess.[1] The diagrams which Burgess drew have probably been reproduced, at least in modified form, more often than any others in the field of urban studies. It is unfortunate that the accompanying text has so far had a somewhat more restricted currency.

Burgess' main concern in the 1925 essay was to provide a framework within which to study urban growth. He suggested that this might be done by viewing the physical growth of the city as an expansion process, within which two sub-processes could be isolated: invasion-succession, and centralization-decentralization. These sub-processes

*The author wishes to thank the staff of the York University Department of Geography Cartographic Office for drafting the figures accompanying this article.

tended to produce a differentiation of the city according to a pattern of concentric zones, stretching outwards from the center. Around a central business district was a "zone in transition," which included a factory zone. Outside these were three residential zones of increasing status with distance from the center.

Expansion processes might also be studied in terms of social organization. Here the problem was reduced to two questions:

> How far is the growth of the city, in its physical and technical aspects, matched by a natural but adequate readjustment in the social organization? What, for a city, is a normal rate of expansion with which controlled changes in the social organization might successfully keep pace?[2]

In order to clarify the notion of the existence of a "normal rate of expansion" for a city, Burgess introduced a biological analogy. The natural rate of population increase could be viewed in the same terms as the anabolic and catabolic processes of metabolism in living organisms. The natural rate of increase might be used as a yardstick against which to measure excessive increases in population. Quite clearly, the "normal rate of expansion" of American cities had far exceeded the natural rate of increase in the population. The result had been "disturbances of metabolism," brought about by rapid in-migration.

The resulting condition of the city was reflective of that of individual in-migrants, being characterized by widespread disorganization. Cities appeared to Burgess to go through phases of disorganization which stemmed from disruptions of their metabolisms, and which were "accompanied by excessive increases in disease, crime, disorder, vice, insanity, and suicide." All of these conditions could thus be used as indices of social disorganization. The best index of all, however, was the rate of spatial mobility.[3]

During the city-expansion phases "a process of distribution takes place which sifts and sorts and relocates individuals and groups by residence and occupation."[4] What eventually emerged was a social landscape, but also including differentiated subareas produced by segregation processes which separated the population into "economic and cultural groupings." Such spatial changes took place at the same time as related changes in the social structure of the city, particularly in the division of labor.

Burgess' essay should be viewed within the context of a school of human ecological thought which Willhelm has called "traditional materialism."[5] The conceptual bases of this school of thought were formulated largely by Robert E. Park. Although subsequent schools of urban ecology departed from this original conception, they did so largely by abandoning the study of process, thereby transforming urban ecology into the study of the patterning of social variables. Park's orig-

inal conception remains as a profound insight into the nature of the laissez-faire American city, and even the much derided biological imagery should serve to heighten our appreciation of its inner dynamism.

The key ideas of the Burgessian scheme—normal and excessive rates of population increase, phases of disorganization and reorganization, disturbances in metabolism, ensuing adjustments in the structural and spatial composition of the city—are fully consistent with the general notions of Park.[6] Central to Park's theory was the idea that the human community *qua* ecological community tended toward a state of equilibrium with its natural environment. The natural condition of the ecological community was biological competition. In the human community this was frequently manifested in economic competition. But above the human community was *society,* which, by establishing a system of social controls, regulated the natural tendency toward out-and-out competition. The level of competition within a society could thus be used as an index of the strength and effectiveness of these social controls.

William L. Kolb cast these concepts of social structure into a time sequence, which he claimed was implied in the Parkian scheme.[7] According to Kolb, Park viewed the achievement of a state of equilibrium between a community and the "natural resources and spatial characteristics of the environment" as allowing the development of a moral order—a system of social controls—which reinforces the balance. A shock, usually excessive population increase, may loosen the hold of the moral order, allowing unregulated competition to resume. Readjustments—particularly changes in the division of labor—are subsequently made in society, allowing the restoration of equilibrium and the eventual development of a new moral order. Kolb's paper directly confronted the essence of the ecological argument, and provided a valuable clue to its spatial and temporal relevance. Kolb regarded the main deficiency in the argument as being a failure to allow for the influence of social values, and proposed a partial remedy which would incorporate into the ecological viewpoint several of the Parsonian pattern variables of value orientation.[8] The American city is seen as having developed within a society dominated by universalistic achievement-orientation, that is, one in which status was gained in direct relation to performance, as evaluated against a set of highly generalized standards.[9] The American city could not be understood without the realization that these values "came to pervade the major normative and belief systems of American society: religion, morality, legal institutions, folkways, mores, proverbs, practical philosophies, ideologies, and norms governing social action in the political and occupational world." These were the orientations which produced "the modern division of labor, the market economy, and the bureaucratic enterprise."[10]

In Kolb's view, Park interpreted the pervasiveness of competition in early twentieth century Chicago as a reflection of "the relative freedom from the moral order which [its] inhabitants enjoyed."[11] Kolb himself preferred the interpretation that economic competition was sanctioned by the moral order, the moral order itself being characterized by a universalistic achievement-orientation. He saw the period 1870-1930 in Chicago as one in which universalistic achievement values so permeated the moral order that it was "barely capable of creating and sustaining a social order." Social practices were pushed beyond those sanctioned by Protestant individualism (of which Chicago was the purest product) to new extremes of the "economic law of the jungle," of anomie, and of social breakdown.[12] Changes in patterns of residence were viewed by the human ecologists as one of a number of adjustments which take place in an urban system in response to shock. Such changes in pattern are closely linked with related changes in mobility rates, the division of labor, the incidence of mental disease, the spatial distribution of the population, and other variables. The changes tend to occur in bursts, periods of rapid change being separated by "normal" periods of relative stability.

It is a remarkable fact that the city, which was the laboratory of the early human ecologists, was also the city which epitomized the American industrial age. Well before the Civil War, Chicago was establishing the foundations of what became an urban industrial boom of extreme proportions. Between 1840 and 1850 the city's population increased six-fold and the value of its real estate increased twenty-fold, as the wheat trade developed, and as factory industry gained a foothold.[13] By the end of the century, as a result of several frantic bursts of growth, Chicago had become a world city. Its reputation grew almost as rapidly. Chicago was the "noisy marketplace," the "roaring boiler factory,"[14] dominated by people who possessed, "an invulnerable faith in the power of man... to overcome any obstacle [and] an unquenchable faith that physical forces must and would be subdued and made to serve the purpose of man."[15] To many, Chicago meant ruthlessness, even menace.[16] By the 1890s its blood-thunder reputation had made it the "shock city" of the age.[17] Visitors saw in it, "the very essence of American civilization," and the epitome of the American miracle.[18]

Between the Civil War and the Great Depression, Chicago, according to human ecological theory, experienced a period of sustained shock. Bursts of rapid industrial growth and rapid in-migration threatened the moral order and produced a state of disequilibrium. It was the social adjustments to this situation, as interpreted within a survival of the fittest framework by urban sociologists, which gave rise, beginning in the 1920s, to a host of studies of "what the city did to man."

The miracle of American urban-industrial growth was celebrated

almost everywhere in the United States, except in the South. The Civil War, which augmented Chicago's growth, brought devastation to the South; and while the American mainstream was riding the post-war economic boom, the South felt only the bitterness of Reconstruction. The foundations of this contrast were laid down well before it evolved into open conflict. During the first half of the nineteenth century the South had become progressively more defensive of its way of life, more provincial in outlook and more intolerant of outside influences. These trends are revealed in the public pronouncements of politicians, in personal letters and diaries, and in the literature of the age.[19] A "cordon sanitaire" was erected against those ideas which were regarded as dangerous to the established order, creating, especially after 1830, "a nearly static society walled off by a dike that was intended to preserve the static character."[20]

In no city was this resistance to change, this reverence for the past, more strongly expressed than in Charleston, S.C. Charleston was not in any real sense the "capital" of the Old South; it was the capital only of an important Tidewater planting community. But it did become, during a period of declining economic fortunes, the center of the idea of Southern nationalism.[21] It was, in Eaton's phrase, "the very citadel of Southernism," the center as Rogers has shown, of the idea of a Southern way of life.[22] Antebellum Charleston was, in fact, the center of a powerful moral order—the focus of strands of thought which were to be found throughout the South. Its intellectual community wove these strands into a coherent idea which received strong historical and mythical reinforcement. The idea was sufficiently strong to propel the city and state into unilateral secession from the Union.

The value system of late antebellum Charleston emanated from the planters.[23] Finding in this coastal seaport first a seasonal haven from "country fever," and later a year round list of social activities, the Tidewater planters became a growing presence within the city.[24] It became increasingly fashionable during the nineteenth century for planters to build townhouses in the city, and the life of the city came to be dominated by the planting families.[25]

The values of the plantation are, as Genovese put it, antithetical to those of the bourgeois world.[26] "The planter typically recoiled at the notion that profit should be the goal of life; that the approach to production and exchange should be internally rational and uncomplicated by social values; that thrift and hard work should be the great virtues; and that the test of the wholesomeness of a community should be the vigor with which its citizens expand the economy."[27] As the planter presence in Charleston grew stronger, such views came to dominate the city. Charleston's merchant community, previously comparable in size and influence to those of many contemporary U.S. cities, was now overshadowed by the planters. The merchant became an outsider,[28] and

Charleston, instead of evolving from mercantile seaport into industrial city, became instead a leisure capital. The planters essentially stifled the city's development.

The implications for Charleston's place in the U.S. urban hierarchy and for its internal spatial arrangement were profound. It sank from fifth place in the hierarchy in 1830 to sixty-eighth place in 1900. Within the city, the effect of planter influence was to perpetuate a number of internal spatial patterns which elsewhere became obsolete. The planters' interests were in health, aesthetics and leisure.[29] They encouraged the creation and preservation of tasteful architecture and healthful open space, and were adamantly opposed to potentially disruptive forces, especially abolitionism and industrialization. Constant vigilance proved necessary in order to minimize the effects of disruptive threats, both internal and external in origin. Such is the context within which the residential patterns and processes in mid-nineteenth century Charleston should be viewed.

## RACIAL PATTERNS 1860 AND 1880

One important illustration of the nature of the residential processes and patterns which dominated mid-nineteenth century Charleston is provided by a comparable study of its racial patterns in 1860 and 1880. Charleston's population of just over forty thousand in 1860 was almost evenly divided between black and white. The city's whole existence was permeated by matters of race, and it is race which provides us with the most sensitive indicator of the nature and direction of residential processes. The period between the two cross-sections was the most turbulent in Charleston's history, involving a major fire in 1861, bombardment and partial abandonment during the Civil War, and the apparent turmoil of Reconstruction. Such events may be regarded as imparting a series of "shocks" to the city, and the nature of the response manifested in the racial residential patterns are therefore of considerable significance to the present discussion.

After 1850 the City of Charleston included not only the four wards south of Calhoun Street but also four additional Upper Wards on the Neck (Figure 1). In order to reconstruct the racial residential patterns of Charleston, a ten per cent systematic sample of heads of household was selected from the federal manuscript censuses of 1860 and 1880. Density maps were drawn of each major racial group for both dates. In order to avoid aggregation problems associated with morphological units such as city blocks, the spatial units adopted were formed by a set of grid squares randomly placed over a map of the city. The frequencies obtained were then generalized (Figures 2 and 3).

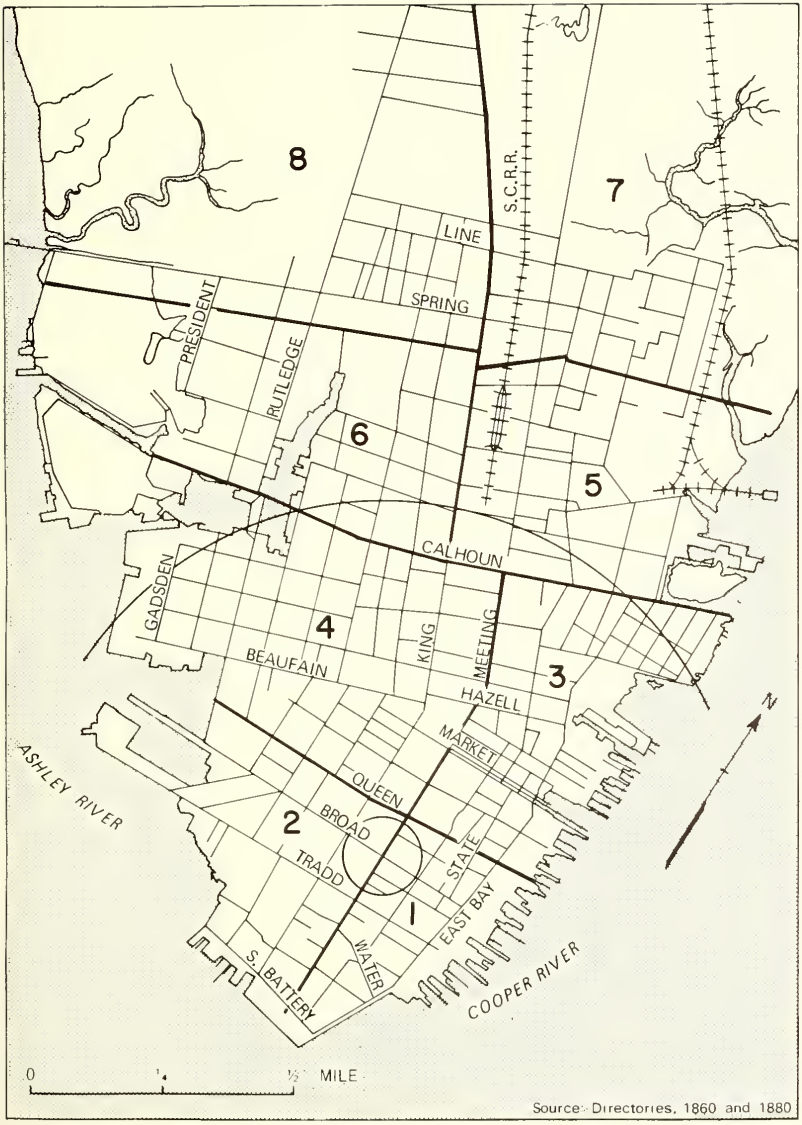



Figure 1. Charleston in 1860, showing major streets and ward boundaries.

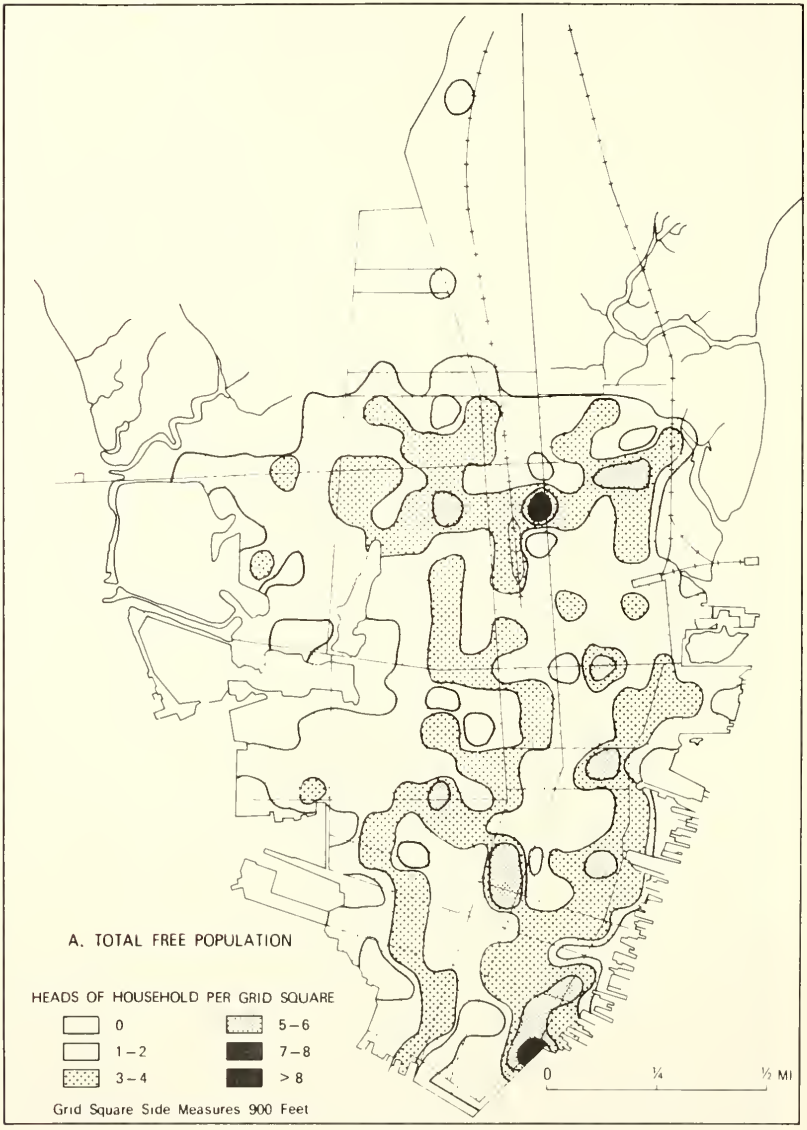



Figure 2. Density of sample heads of household by race, 1860.

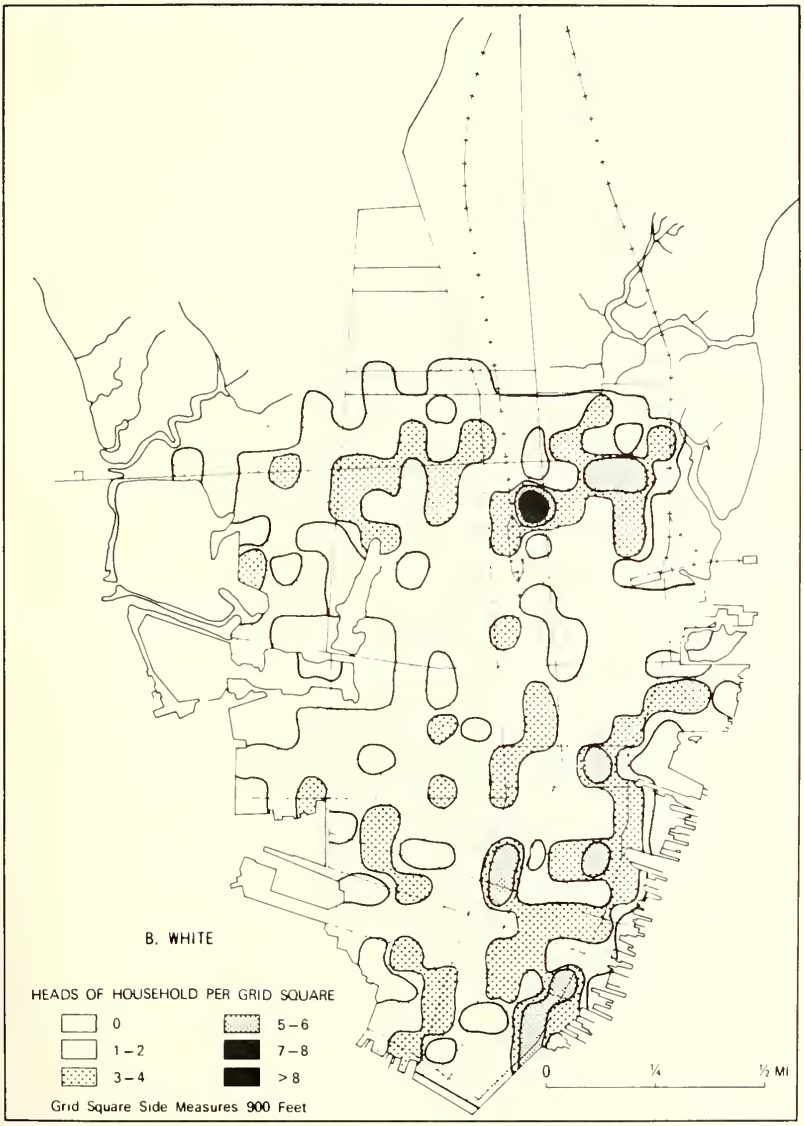



Figure 2 (Continued)

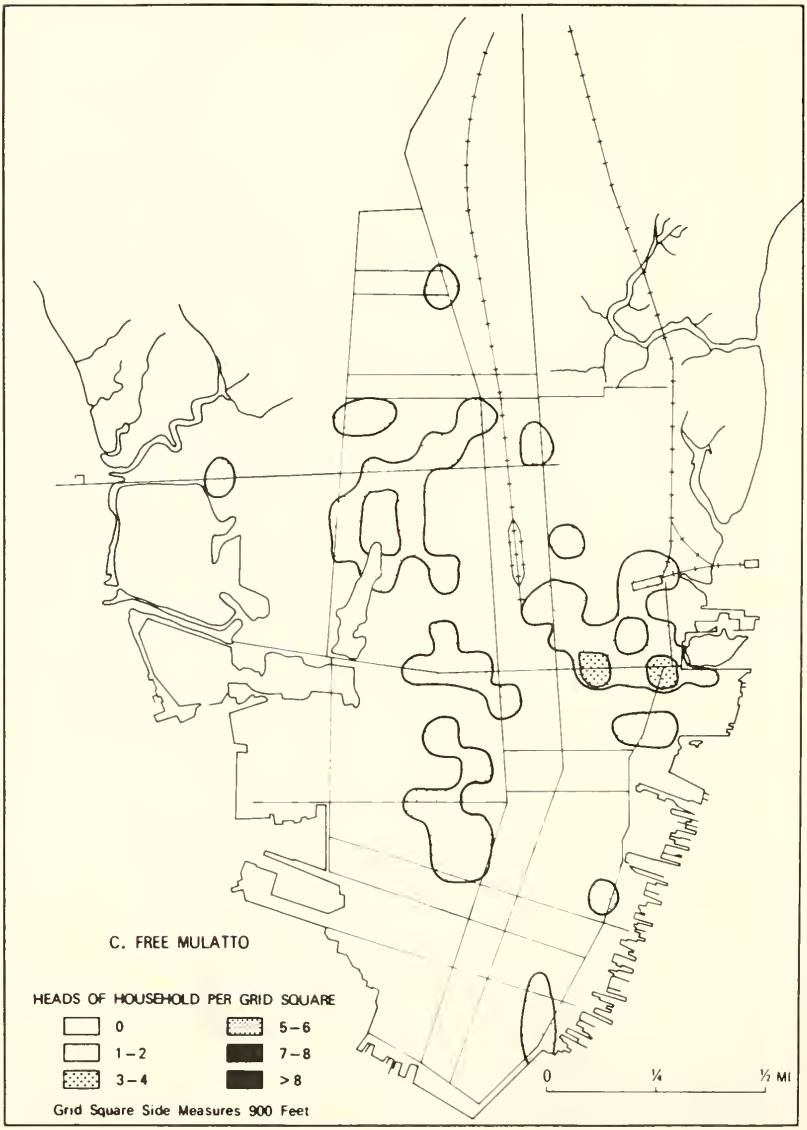



Figure 2 (Continued)

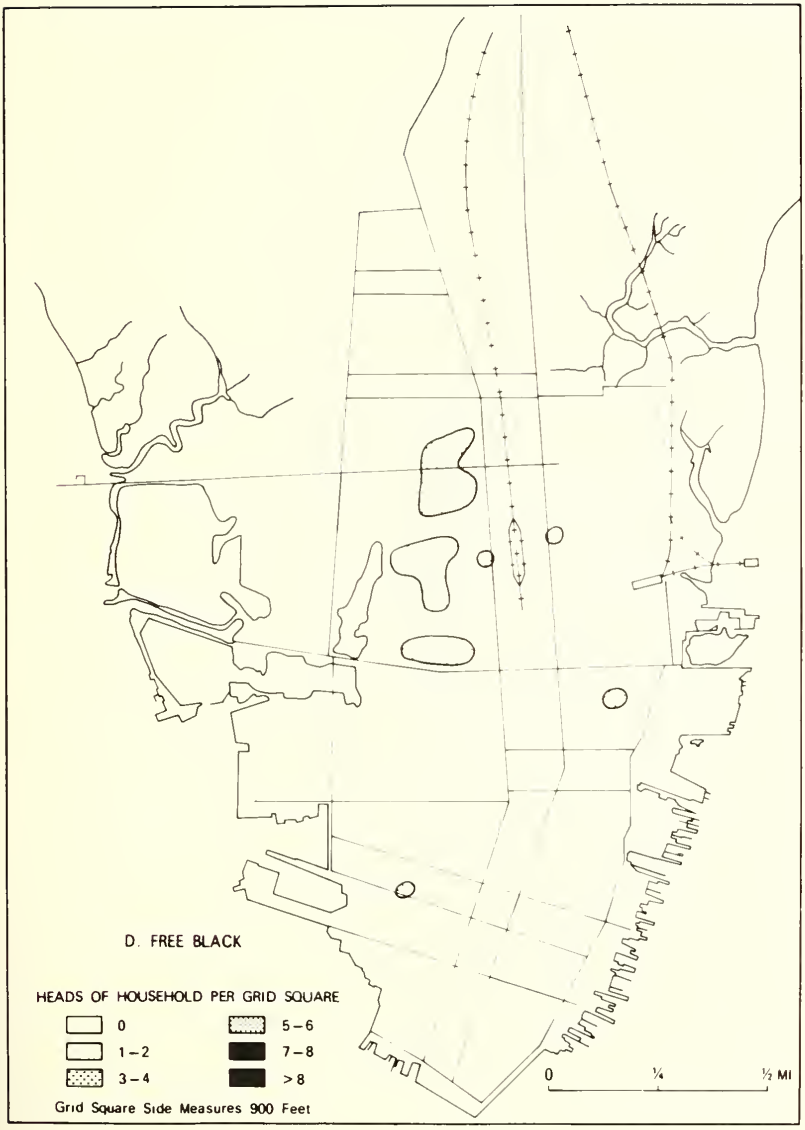



Figure 2 (Continued)

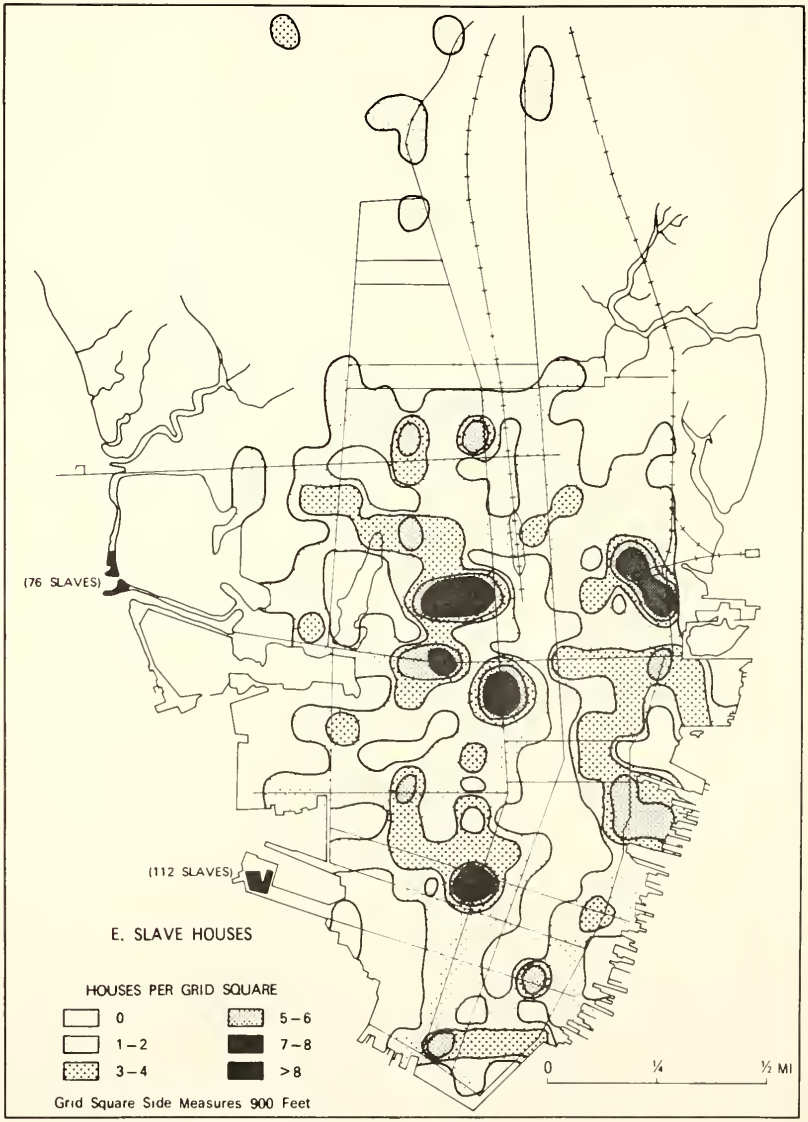



Figure 2 (Continued)

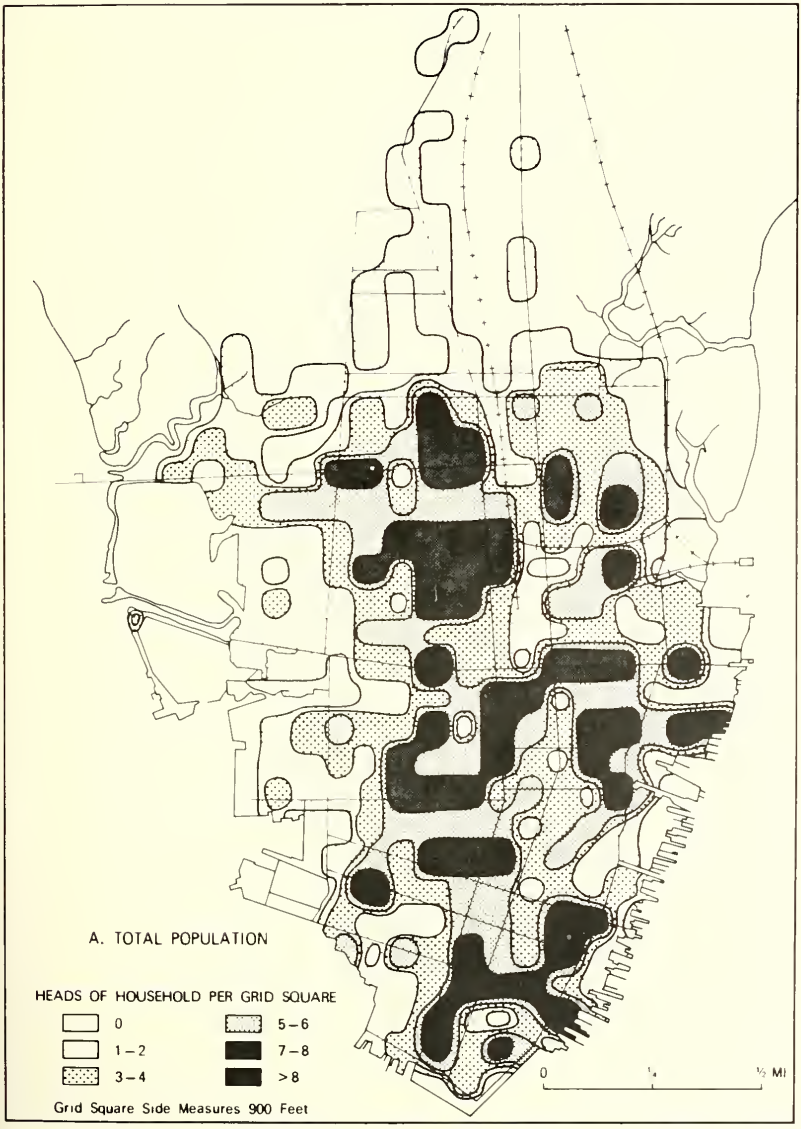



Figure 3. Density of sample heads of household by race, 1880.

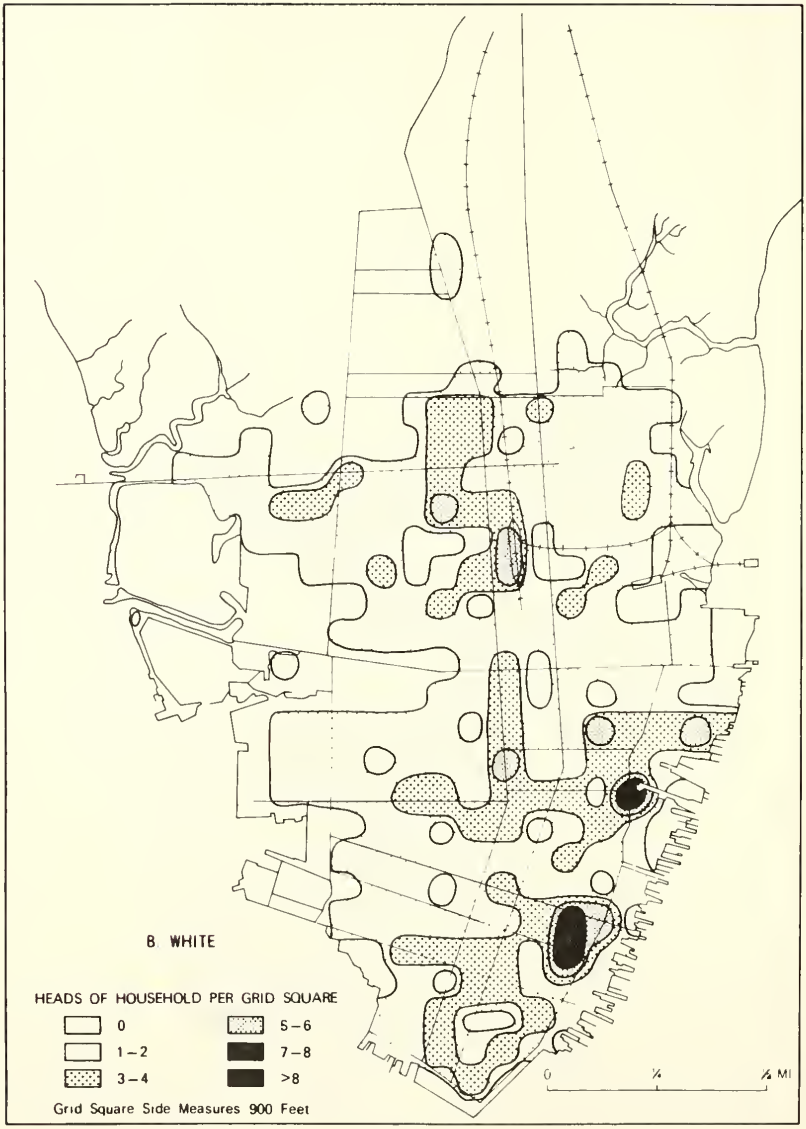



Figure 3 (Continued)

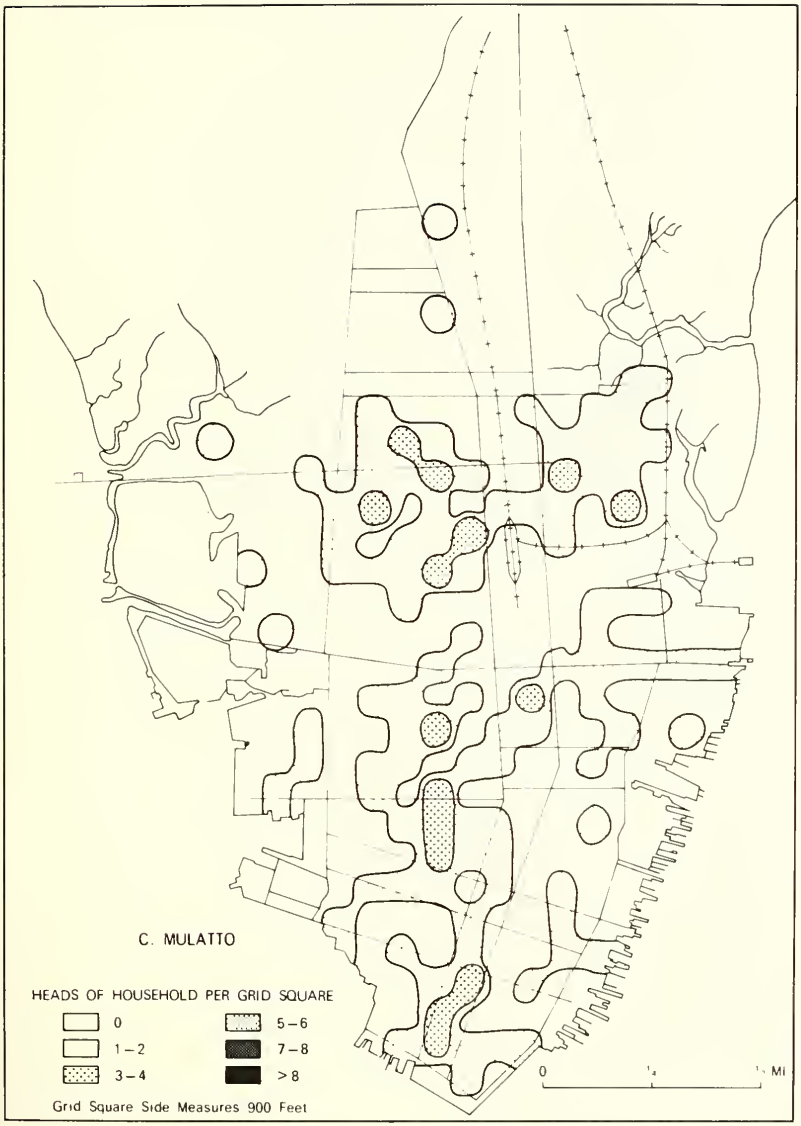



Figure 3 (Continued)

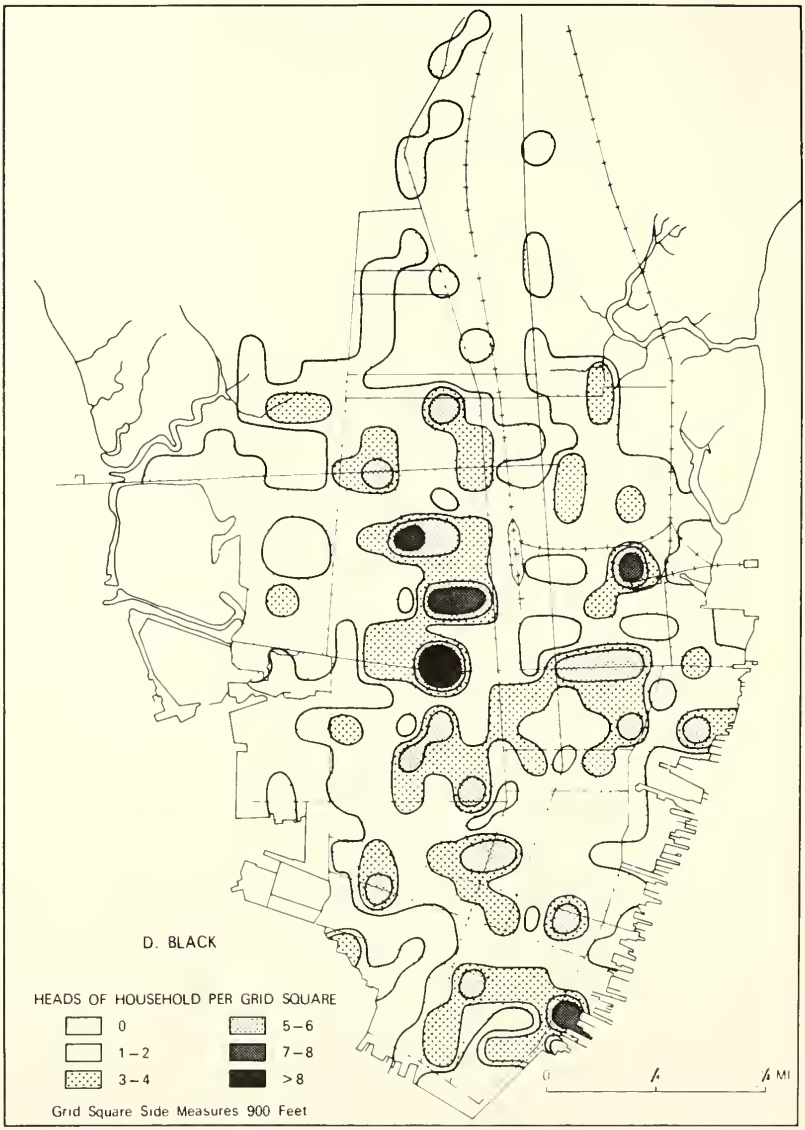



Figure 3 (Continued)

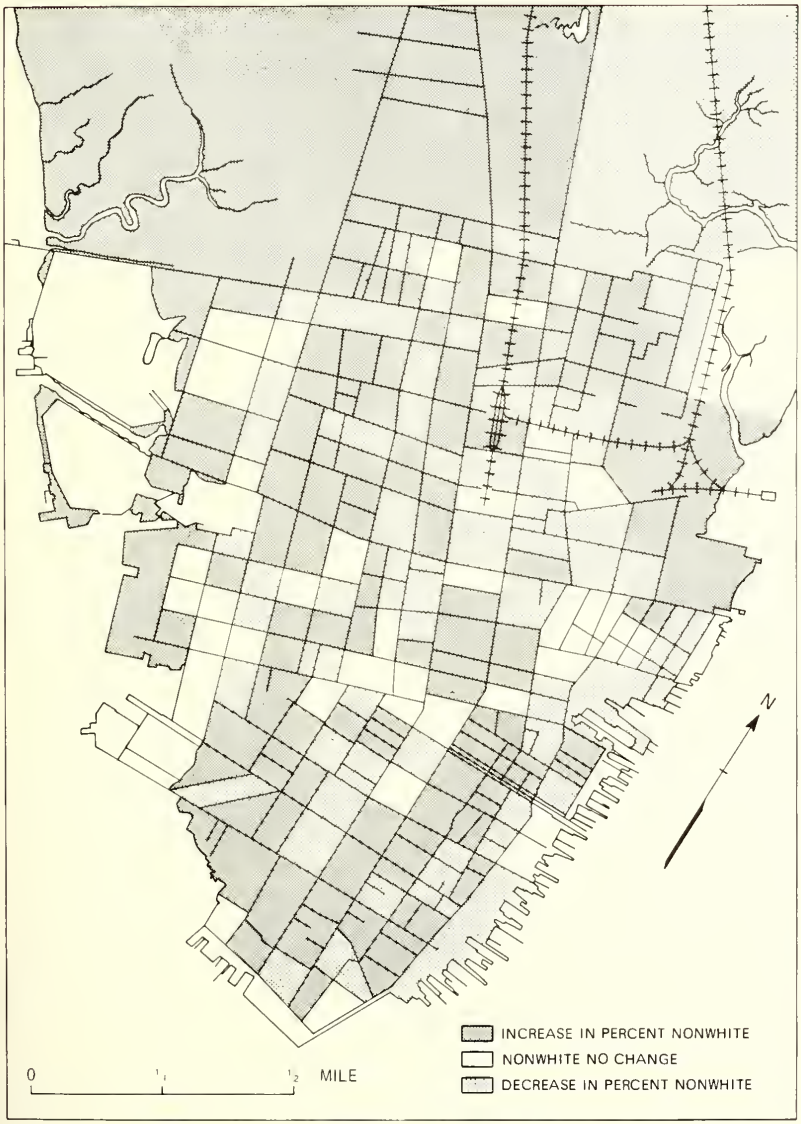



Figure 4. Racial change by block, 1860-1880.

Figure 2A shows the density distribution of the total free population in 1860, and figures 2B, 2C and 2D show the distributions of the major racial subsets of the population as recognized in the federal census. Figure 2E is an attempt to provide a comparable view of the distributions of the slave population by mapping the slave houses enumerated in the Ford census of 1861.[30] While the distribution of the white population approximates that of the total population, the slave houses are arrayed in two broad sectors, one in the center of the peninsula (King Street) and one in the east (East Bay Street). Some areas within these sectors show very high levels of concentration. Perhaps the most interesting feature, however, is the substantial northerly bias in the distribution of free mulattoes. This becomes extreme in the distribution of free blacks.[31]

Figure 3 suggests that only a limited amount of change had taken place in these macro patterns by 1880. It is true that detailed comparison is made difficult by the absorption of former slaves into the mulatto and black categories, and an increase in the total numbers caused by an influx of rural freedmen.[32] Further, in order to measure residential change in detail, closer analysis of small sections of the city would be necessary. Such a need is illustrated by Figure 4, which shows racial change by city block and suggests the occurrence of marked changes within small areas. Nevertheless, the lack of any major change at the city-wide scale is clearly demonstrated by Figures 2 and 3. Given the events of the two decades in question, the persistence of the overall racial patterns is quite remarkable.

## INTERPRETATION AND CONCLUSION

Despite repeated and in the short term highly disruptive shocks, the residential patterns by race in Charleston were remarkably persistent between 1860 and 1880. Two main reasons may be advanced for this: the persistence of antebellum attitudes and the nature of the shocks themselves.

After the Civil War the main desire of most of the whites reoccupying the partially ruined and abandoned city was to restore Charleston to its former condition, and to re-establish life as it had been before the war. Unavoidable realities such as the impoverishment of many leading citizens and the abolition of slavery would, as far as possible, be accommodated. The War created no new direction, and neither indeed did Reconstruction. The once popular view of a "world turned upside down" in Reconstruction South Carolina has little foundation in reality as recent studies have shown.[33] While some in Charleston looked for a "change of heart", either racially or economically, it never materialized. The persistence of anachronistic patterns in 1880 is to a large extent a reflection of the tenancity of antebellum values. The traumatic events of the era—bombardment, the virtual abandonment of the city, the

threat of total destruction, as well as the freeing of the city's slaves and in in-migration of thousands of rural freedmen—rivalled in intensity anything experienced by Chicago. Yet these events were imposed upon the city and were external to its value system. They were not, as in Chicago, a result of processes sanctioned by its value system—less ecological shocks, perhaps, than parametric shocks. There existed no logical social or spatial response by which to effect a "readjustment." In Charleston we confront not the city dynamic but the city intransigent.

Human ecology reflected, if rather crudely and with some exaggeration, the condition of Chicago in the late nineteenth and early twentieth centuries. The inappropriateness of this formulation to Charleston is most apparent in the virtual omission of racial factors. The earliest clear statement concerning urban blacks in the ecological literature comes from McKenzie who portrayed the black as an inmigrant whose differentiating characteristic is highly visible and does not, like language and culture, disappear.[34] Instead of moving outward to homogeneous suburbs, the black community expands *in situ.* This view has nothing to contribute to our understanding of the delicate process which allocated racial residential space in Charleston. The notion of competition for residential space in human ecological terms also has little meaning in Charleston. The city's growth rate did not approach anything which could be described as "abnormal". The concept of "disturbance of metabolism" seems to require a degree of dynamism which is not present, and the notion of rapid spatial changes—"sifting and sorting"—as part of a readjustment process presumes a rationality of response rarely encountered in Charleston.

But for the moral flaw of slavery, the urban view offered by the Old South and epitomized in Charleston might have produced a more lasting alternative to the dominant strain of American urbanism. As it was, Charleston, although resolutely un-Reconstructed, yielded spremacy after the Civil War to those towns which, in Coulter's phrase, "had Yankee stamped on them." The New South brought a new philosophy and a different economic alignment which by-passed the city. Charleston's moral order became once again confined to a small portion of the Tidewater, and this city, for a time the center of a great idea, became, in the context of the American mainstream, little more than a curiosity.

## FOOTNOTES

[1] Ernest W. Burgess, "The Growth of the City: An Introduction to a Research Project," in Robert E. Park and Ernest W. Burgess, *The City* (Chicago: The University of Chicago Press, 1925), pp. 47-62.

[2] *Ibid.*, p. 53.

[3] *Ibid.*, pp. 59-61.

[4] *Ibid.*, p. 54.

[5] Sidney M. Willhelm, *Urban Zoning and Land Use Theory* (New York: The Free Press, 1962), pp. 13-49.

[6] These notions are most concisely expressed in, Robert E. Park, "Human Ecology," *American Journal of Sociology*, XLII (1936), pp. 1-15. They are described in detail in several early works, notably in, Robert E. Park and Ernest W. Burgess, *Introduction to the Science of Sociology* (Chicago: University of Chicago Press, 1921). For an overview of the intellectual history of this text, and an evaluation of the relationship between the two men, see, Robert E. L. Faris, *Chicago Sociology: 1920-1932* (San Francisco: Chandler Publishing Company, 1967), pp. 37-50.

[7] William L. Kolb, "The Social Structure and Functions of Cities," *Economic Development and Cultural Change*, III (1954), pp. 30-46.

[8] Talcott Parsons, *The Social System* (New York: The MacMillan Co., 1951), pp. 88-112.

[9] In Parsons' words, universalism "favors status determination, i.e., the allocation of personnel, allocation of facilities and rewards, and role-treatment on the basis of generalized rules relating to classificatory qualities and performances independently of relational foci. . . . The combination with achievement values . . . places the accent on the evaluation of goal-achievement and of instrumental actions leading to such goal achievement . . . [and] promotion of the welfare of a collectivity as such tends to be ruled out. The collectivity is valued so far as it is necessary to the achievement of intrinsically valued goals. This is the basis of a certain 'individualistic' trend in such a value system." Parsons, *The Social System*, pp. 182-183.

[10] Kolb, "The Social Structure," p. 34.

[11] *Ibid.*, p. 35.

[12] *Ibid.*, p. 37.

[13] Bessie Louise Pierce, *A History of Chicago*, Vol. I, *1673-1848* (New York: Alfred A. Knopf, 1937), p. 403.

[14] Henry Hanson, *The Chicago* (New York: Rinehart and Company, Inc., 1942), p. 337.

[15] Pierce, *A History of Chicago*, p. 403.

[16] Henry Justin Smith, "Introduction" in Lloyd Lewis and Henry Justin Smith, *Chicago: The History of Its Reputation* (New York: Harcourt, Brace and Co., Inc., 1929), pp. xi-xii.

[17] Asa Briggs, *Victorian Cities* (2nd ed.; New York: Harper and Row, 1970), p. 56.

[18] Allan H. Spear, *Black Chicago: The Making of a Negro Ghetto* (Chicago: University of Chicago Press, 1967), p. 1.

[19] See especially: Clement Eaton, *Freedom of Thought in the Old South* (New York: Peter Smith, 1951) and William R. Taylor, *Cavalier and Yankee: The Old South and American National Character* (New York: George Braziller, Inc., 1961).

[20] Rollin G. Osterweis, *Romanticism and Nationalism in the Old South* (New Haven, Conn.: Yale University Press, 1949), p. 11.

[21] Clement Eaton, *The Mind of the South* (Baton Rouge: Louisiana State University Press, 1969), pp. 162-165.

[22] George C. Rogers, *Charleston in the Age of the Pinckney's* (Norman, Okla.: University of Oklahoma Press, 1969), pp. 162-165.

[23] *Ibid.*, p. 323. See also Rogers' volume *The History of Georgetown County, South Carolina* (Columbia: University of South Carolina Press, 1970).

[24] Lawrence Fay Brewster, *Summer Migrations of South Carolina Planters* (Durham, N.C.: Duke University Press, 1947), p. 4.

[25] John Lofton, *Insurrection in South Carolina* (Yellow Springs, Ohio: The Antioch Press, 1964), p. 43. Brewster, *Summer Migrations,* pp. 4-5. Thomas R. Waring, "Charleston: The Capital of the Plantations" in Augustine T. Smythe *et. al. The Carolina Low Country* (New York: The MacMillan Co., 1931), p. 132.

[26] Eugene D. Genovese, *The World the Slaveholders Made: Two Essays in Interpretation* (New York: Random House, 1969), pp. 118-244.

[27] Eugene D. Genovese, *The Political Economy of Slavery: Studies in the Economy and Society of the Slave South* (New York: Random House, 1965), pp. 28-29.

[28] Rosser H. Taylor, *Ante-Bellum South Carolina: A Social and Cultural History* ("The James Sprunt Studies in History and Political Science," Vol. XXV, No. 2; Chapel Hill, N.C.: University of North Carolina Press, 1942), p. 44. See also William W. Freehling, *Prelude to Civil War: The Nullification Controversy in South Carolina, 1816-1836* (New York: Harper and Row, 1965), p. 13; and Rogers, *Charleston in the Age of the Pinckneys,* p. 52.

[29] The role of aesthetic appreciation and the importance of leisure among the Tidewater planters is a recurrent theme in the secondary literature on Carolina society. On Charleston, see, for example: Constance McLaughlin Green, *American Cities in the Growth of the Nation* (London: The Athlone Press, 1957); Louis B. Wright, *The Cultural Life of the American Colonies* (New York: Harper and Brothers, 1957), and Taylor, *Ante-Bellum South Carolina,* pp. 33-40.

[30] Frederick A. Ford, *Census of the City of Charleston, South Carolina for the Year 1861* (Charleston, 1861).

[31] For an interpretation of these patterns and an alternative set of maps of race in Charleston, see John P. Radford, "Race, Residence and Ideology: Charleston, South Carolina in the Mid-Nineteenth Century" *Journal of Historical Geography,* II (1976), pp. 329-346.

[32] These complications, and some possible adjustments which can be made to allow for them, are discussed in, John P. Radford, "Culture, Economy and Residential Structure in Charleston, South Carolina 1860-1880," Unpublished Ph.D. dissertation, Clark University, 1974, pp. 291-293.

[33] For example: Peggy Lamson, *The Glorious Failure: Black Congressman Robert Brown Elliott and the Reconstruction in South Carolina* (New York: W. W. Norton and Co., Inc., 1973); Martin Abbott, *The Freedman's Bureau in South Carolina: 1865-1872* (Chapel Hill: University of North Carolina Press, 1967); Carol K. Rothrock Blesser, *The Promised Land: The History of the South Carolina Land Commission, 1869-1890* (Columbia: University of South Carolina Press, 1969).

[34] R. D. McKenzie, *The Metropolitan Community* (New York: Russell and Russell, 1933), p. 242.

# THE DECLINING SMALL SOUTHERN TOWN

By Charles F. Kovacik*

Although abandoned fields now overrun by kudzu or planted in pine forests mask evidence of past occupance, many relict features, such as empty tenant houses or lone brick chimneys standing mute in fields of soybeans, testify to a once more densely inhabited rural southern countryside. Many small towns which once served more heavily populated agricultural hinterlands have also declined in population and are now characterized by empty streets, abandoned stores, ramshackle houses, silent railroad sidings, and a general atmosphere of disrepair and despair. Anyone who has traveled through the rural South is familiar with the declining small town. Fort Motte, South Carolina is such a place.

Although the area surrounding the present-day town was settled in the 1740s, the place name was not used until 1781. During the Revolutionary War, the British seized the home of Colonel Isaac and Rebecca Motte and used it as a fort. Rebecca Motte urged the colonials to use burning arrows to fire the home, and this resulted in the surrender of the British.[1] This patriotic action ensured a place for both Rebecca Motte and the place name, Fort Motte, in South Carolina's recorded history.

The Fort Motte battle site is located in Robert Mills' 1825 atlas and many subsequent state maps.[2] Development of a town, however, did not begin until after 1842 when the Louisville, Cincinnati, and Charleston Rail Road was completed from Branchville to Columbia.[3] A post office opened in 1847, and in 1856 the train stopped at Fort Motte twice daily.[4] The town grew, and increased rail service stimulated and reflected its development. The train stopped six times a day in 1870 and provided two mail deliveries, four passenger stops, and more regular freight service.[5]

Fort Motte was incorporated as a town in 1875 and, like most small railway settlements in central South Carolina, served an agricultural hinterland based upon cotton.[6] During the late nineteenth and early twentieth centuries, the town's growth was promising. In 1883 Fort Motte included the post office, a general store, two physicians, a depot agent, private school, and a cotton gin. The number of retail establish-

*The author wishes to express his appreciation to Dr. William R. Stanley, Department of Geography, University of South Carolina, for his participation in gathering the field information and for helping make this a most worthwhile learning experience.

ments increased to nine, and the population was estimated at 250 individuals in 1888. Population increased to 375 by 1908 and there were 10 shops, a hotel, a bank, two physicians, a telephone exchange, a cotton seed oil mill, grist mill, and a dispensary which sold liquor. The armory housed the Fort Motte Guards and elms were planted along the gas lighted sidewalk. The church was not far from the well-kept homes of the white businessmen, and the railroad depot faced the business district.[7] Before the widespread adoption of the automobile, the streets were crowded with people each Saturday.

Today the streets are empty and the community is but a shell of a more glorious past (Figure 1). Buildings either sit abandoned or have been torn down for their brick. The nearest grocery store is twelve miles distant. The depot is gone, and rarely does the train blow its whistle at the crossing. Those desiring bus service must walk three miles to the main highway and hail a bus. Only one establishment serves the public, a third class post office. A deserted Main Street and the unkempt homes and yards of the 144 inhabitants (all but two of whom are black) are typical of scores of towns that once served a more populated hinterland in South Carolina and throughout rural America. Fort Motte has all but expired.

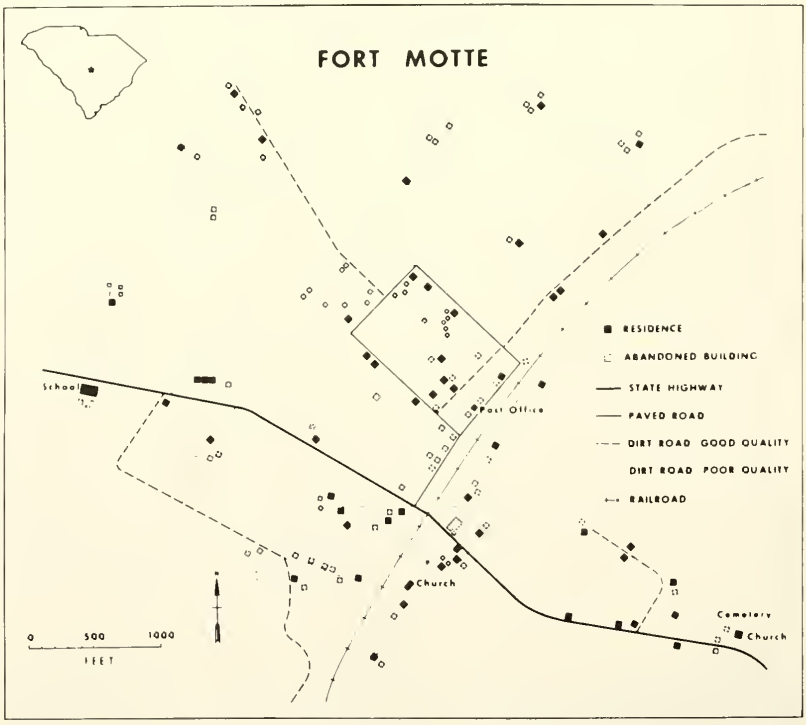



Figure 1

Industrialization, urbanization, and concomitant migration from rural to urban areas have accounted for significant changes in the American landscape and lifestyle since the turn of the century. For many reasons millions left rural areas to seek a new way of life in the nation's cities. The changes in transportation, agriculture, and industry since World War I induced massive migration from most rural areas. Southern agriculture became more diversified with a shift to beef cattle, hogs, dairying, pulpwood, poultry, peanuts, soybeans, and truck farming. Traditional row crop agriculture lost acreage. Small farmers and small farms were eliminated in favor of larger more mechanized farms, and the increased mechanization forced farm laborers and tenants off the land.[8] Both blacks and whites left the farm, but blacks could not compete with whites for jobs in southern cities. Two World Wars stimulated industry in the North, and a tremendous demand for unskilled workers arose in northern cities. Rural southerners made the trek, most stayed in the North and most were black.

Slow to industrialize, South Carolina experienced considerable out-migration especially among its black population. Population growth lagged behind the national average, and vast areas of the rural countryside and many small towns became depopulated. Between 1920 and 1960 the state lost over one-half million persons to out-migration, and this loss was predominantly among its non-white population.[9] Net out-migration among non-whites was recorded at 217,784 persons during the 1950s and 176,912 in the 1960s.[10] Recent migration estimates indicate that a significant change is occurring. Between 1970 and 1974, it appears that South Carolina has gained 79,000 persons through migration as compared to the negative statistics of previous decades.[11] Nevertheless, the fact that South Carolina suffered substantial out-migration for a long period has left lasting marks on the rural landscape.

Between 1960 and 1970, exactly one-half of the state's forty-six counties suffered population decline. Thirty-five counties declined in black population, and thirty-one lost rural population. The significance of black out-migration with respect to depopulation is perhaps best evidenced by the fact that thirty-nine counties reported net out-migration with forty-five of the forty-six counties registering a net out-migration among blacks.[12] Even though the most recent statistics reveal that migration trends are changing, eighteen counties are estimated to have experienced a negative net migration between 1970 and 1974, and four declined in population.[13] These counties include high proportions of rural and black populations.

## PURPOSE

The objective of this paper is to direct attention to a ubiquitous southern landscape feature, the declining small town. The present-day form, function, and problems of such towns are the result of changes

which have occurred through time. Many of these declining places owe their condition to continuous and sustained black out-migration. Although it has been recognized that black out-migration from the rural South has swelled the size and altered the spatial organization of northern cities, few geographers have studied the relationship between this out-migration and decreasing social and economic opportunity in the rural South. Even less energy has been directed at examining the quality of rural or small town life of southern blacks. By illustrating some of the problems facing such places, perhaps the southern landscape can be better understood by its students, people, and decision-makers.

The paper is based upon information gathered in the field over a period of several months in 1971 and 1972. Informal, yet structured, personal interviews were conducted with a member of each household in Fort Motte, South Carolina. The specific purposes of this paper are: (1) to determine how many people left and where they went, (2) to illustrate the relationship between out-migration and age structure and its significance, and (3) to document the favorable and unfavorable aspects of the quality of life in a small declining black community as perceived by its residents.

## DESTINATIONS

Situated in rural Calhoun County, Fort Motte provides an ideal study area. Calhoun was one of twenty-three South Carolina counties which declined in population between 1960 and 1970. The county reported a population of 10,789 persons in 1970, a decline for the decade of 12 percent. Blacks accounted for 60 percent of the total population, and population has declined during each decade since 1920.

The head of each household was asked to disclose the age and place of residence of each surviving child who left the household. These questions were aimed at determining the age structure of some of the out-migrants and their spatial distribution. By no means does this information include all of Fort Motte's out-migrants. All of the 120 reported out-migrants are between the ages of fifteen and fifty-four, sixty-eight are females and fifty-two are males, and 82 percent are between the ages of twenty and thirty-nine.

The typical pattern of rural black out-migration appears to begin after high school graduation. The migrant either moves immediately after graduation or "hangs around" exploring the limited local employment situation. After age twenty, if a suitable job has not been found he "goes up the road" where employment opportunities are more plentiful. Thus, the rural area becomes depopulated, with the economically productive living elsewhere.

Only twenty-three of the children who were born and raised in Fort Motte and chose to leave relocated elsewhere in South Carolina. Nearly

three-fourths who did were females, and most of them reside in nearby St. Matthews. Only four took residence in Columbia, one in Charleston, and one in Fayetteville, North Carolina, which reaffirms the notion that rural blacks see little opportunity in larger southern cities. The remainder are scattered in small central South Carolina towns or in other rural locations.

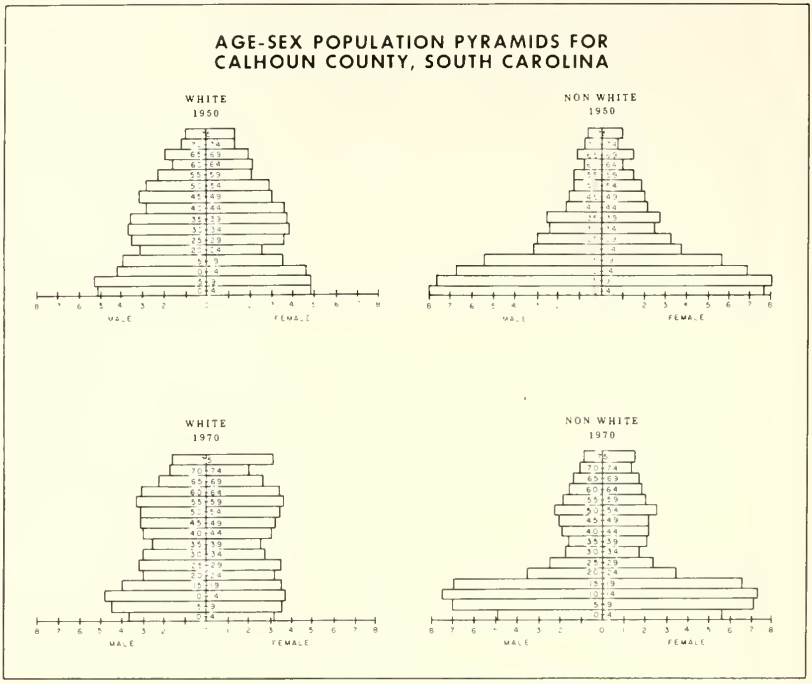
Of the ninety-seven who left Fort Motte and South Carolina, 70 percent chose to establish their new way of life in one of the large metropolitan areas extending from Washington, D.C. to Boston. New York City attracted forty-one of the out-migrants, twenty-three went to Washington, D.C. and eight to Newark, New Jersey. The remainder live in six other northeastern seaboard cities. Cities of the Middle West and Pacific Coast received few Fort Motte out-migrants. Cleveland, Chicago, and Detroit combined attracted only four migrants, and one one person ventured as far as Los Angeles. It appears that when a rural black South Carolinian contemplates "goin' up the road" he is more often than not evaluating conditions in either New York, Washington, or Newark. More than likely these are the places which already include family or friends. The potential out-migrant has more information onthese places and can go to a friend for help upon arrival.

## OUT-MIGRATION AND AGE STRUCTURE

Age structure, the proportion of people within various age groups, is an important demographic characteristic. An individual's age influences his personal needs, his social and economic activities, what he thinks, and how he behaves. Many of the services and activities, potential or real, operative in a particular area are related to the age of its population. The age-sex pyramids for Calhoun County and Fort Motte illustrate the relationship between out-migration and age structure (Figure 2).

A population's age structure is the result of past and present fertility, mortality, and migration. Since the population of Calhoun County decreased from 14,753 to 10,870 persons between 1950 and 1970 and there has been no dramatic increase in mortality or decrease in fertility, out-migration has been chiefly responsible for this population decline. During this period there was a slight decrease in the number of whites, but the non-white population dropped from 10,449 to 6,519 persons.

The age-sex pyramids illustrate the age selectivity of out-migration. In each case the twenty to twenty-four year old age group includes a smaller proportion of the population than the age group immediately preceding. This disparity is much more evident among blacks as the base of each pyramid is broad up to age twenty and then narrows significantly with increasing age. Fort Motte has relatively few persons in the young adult ages.



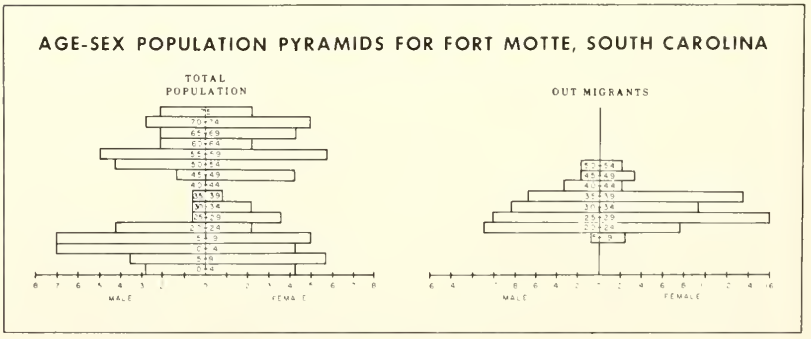




Figure 2

The rectangular shape of the 1970 white population pyramid provides an excellent example of an aging population. The white population grew older and included proportionately fewer youngsters, fewer young adults, and a greater proportion of people over fifty years of age in 1970 as compared to 1950. If this indeed represents a trend, fewer whites will enter the reproductive ages resulting in a drop in birth rate while mortality will increase as greater numbers of whites enter old age groups.

Fort Motte has suffered even greater out-migration than did Calhoun County. Of the surviving children sired by the 144 residents, 120 have departed. To a large degree, the population of Fort Motte is composed of persons either over forty-five years of age or under the age of twenty with very few people in the intermediate ages. The age-sex pyramid of Fort Motte's out-migrants clearly illustrates that most of the persons in the biologically reproductive and economically productive ages have left. If current trends persist, the young people will continue to leave while mortality takes its toll among the old, a situation which forecasts a grim future for Fort Motte.

## WHAT COULD BE DONE TO MAKE LIFE BETTER HERE?

The people of Fort Motte eagerly responded to this question. By proposing measures which would improve their quality of life, they also revealed what they perceived as unfavorable life conditions. Job availability was named by over two-thirds of the respondents as the number one priority if Fort Motte is to become a better place in which to live. The fact that nineteen of the twenty-four males between the ages of twenty and fifty-nine are employed full-time strongly indicates that rural blacks are willing to seek gainful employment. Furthermore, the five who are unemployed are physically disabled.

Perhaps even more significant is the great distance these men travel to their jobs. Since jobs are largely absent in the local area, most commute forty-two miles daily to work in Columbia. One travels eighty-three miles to the Savannah River Atomic Energy facility and three men, employed by Southern Railway, are away from home for the five working days. The residents of Fort Motte collectively agree that if employment were available in the near vicinity, life conditions would improve and fewer young people would choose to migrate.

The second priority was given to a grocery store. The nearest grocery store is located in St. Matthews, twelve miles away. Some residents stated that if even a milkman or peddler came through town once a week, life would improve. Running water and a laundromat often were mentioned as factors which would make life better in Fort Motte. Many of the wells are either dry or of poor quality and some residents lack a dependable water supply. A laundromat would ease the burden of the washboard and galvanized tub washday. It is not uncommon, during the winter months, to see clothes boiling in steaming black iron kettles. Poor medical service, littered streets, and the lack of a playground also were reported as problems.

Although transportation was not articulated as a high priority for the improvement of life, its absence weighs heavily on the residents of Fort Motte. Only one-half of the households maintain a vehicle. The transport problem justifies the second priority given to a grocery store,

especially among the elderly who do not own vehicles. Those without a vehicle are almost solely dependent upon neighbors who own cars for a ride to town. Most of the time transport can be arranged. Each trip, however, costs between $1.50 and $2.00. This added cost to the food bill is especially damaging to persons at minimal or fixed incomes. In addition, a $7.00 to $10.00 reduction in the weekly paycheck is suffered by those who work in Columbia and must pay for transport. The dependency on others for mobility also may be psychologically troublesome. If transport can not be arranged or is too expensive, the alternative is a three mile walk to the main highway and a wait for the bus.

## WHAT IS GOOD ABOUT LIVING HERE?

Even though conditions in Fort Motte are far from good, blacks do perceive some favorable aspects of life in a small rural community. Some interesting responses were offered to the question: What is good about living in Fort Motte? Nearly 57 percent reported that the freedom of country life, peacefulness, quiet, safety, and fresh air were positive factors. Another 21 percent stated that Fort Motte was their home and that they would feel uncomfortable living elsewhere. About 9 percent felt that the cost of living here was low, and 8 percent bluntly stated that there was nothing good about living in Fort Motte.

Some might consider these responses to be of questionable value since many believe that poor, isolated rural blacks have a limited experience or knowledge which would enable them to compare life in Fort Motte with an alternative lifestyle. The notion of the isolated rural black may be more myth than reality. The residents of Fort Motte are indeed poor and black, but their experience with alternative lifestyles is not limited. The fact is that because out-migration has been continuous and of considerable proportion, especially among the inhabitants' children, the people of Fort Motte are surprisingly knowledgeable of the ghetto lifestyle in such places as Washington, New York, and Newark. Parents visit their children, some frequently, or their children visit them during vacation periods. It also is common for the residents of Fort Motte to care for their grandchildren during the summer. It would be interesting to compare some index of isolation for rural black and rural white residents of the South.

The high value placed on the freedom of country life, peacefulness, quiet, safety, and fresh air is more meaningful when the northern ghetto lifestyle is within the experience of Fort Motte residents. Certainly, constraints exist on the freedom of country life for blacks. But, the residents of Fort Motte define this freedom as being able to fish and hunt, plant a garden, and raise some hogs or chickens if they so choose. A large proportion, 71 percent, either raise livestock or tend a garden. Significantly, 73 percent stated that they feel secure in Fort Motte. It would be interesting to compare this response to that of blacks who live in northern ghettos.

## CONCLUSIONS

Certainly it would be untenable to suggest that information from one small town can be related to all small southern towns, or for that matter, all small towns in South Carolina. But anyone with even a limited experience with the rural South can and has witnessed scores of Fort Mottes. More often than not, the problems facing places like Fort Motte and their people are real, deserve attention, and have been created largely by out-migration. The result of out-migration is a smaller, older, less skilled, less educated, and more dependent population.

People in such rural areas require services from their local governments such as law enforcement, fire protection, sewerage, water, schools, roads, and hospitals which are increasingly more difficult to provide from a shrinking local tax base. Retail establishments, entertainment, physicians, and transportation also are required. Such services are almost economically impossible to furnish in a declining market area. Further, the decline in services and the less educated, less skilled labor force discourages industries from locating and improving the economy.

The absence of those things most urban Americans take for granted such as job availability, convenient access to a grocery store or laundromat, and running water are perceived as unfavorable aspects of life by the residents of Fort Motte. In addition, these unfavorable conditions are amplified by the absence of convenient and regular transportation. On the other hand, the residents of Fort Motte perceive country life, peacefulness, quiet, security, and fresh air as favorable life conditions. Interestingly, many middle class white urban Americans seek precisely the same amenities in their flight to the suburbs.

If the attitudes of the people of Fort Motte represent those of other rural southern blacks, job availability is crucial to the improvement of their quality of life. Certainly industries will not rush to locate in places like Fort Motte, but industrial growth in the many southern cities of less than 25,000 inhabitants could be seriously encouraged by the government. The fact that rural blacks overcome long distance and expense to find work implies that there exists a willing labor reservoir in the rural South.

The rural South has been confronted with problems associated with out-migration while a completely different set of problems have been associated with the migrant's arrival in northern metropolitan areas. Rural black out-migration has resulted in a financial and human resource drain for both the rural South and urban North. Even though migration trends are changing and more people are moving into southern states than moving out, most migrants appear to be attracted to the larger urban centers. Unless the declining small towns are revitalized and made more attractive to people and industry, they will continue to decline and perhaps even disappear from the southern landscape.

## FOOTNOTES

[1] Claude Henry Neuffer, "Calhoun County Plantations of St. Matthews Parish Near the Congaree-Santee River," *Names in South Carolina*, Vol. 12 (1965), p. 46.

[2] Robert Mills, *Atlas of the State of South Carolina* (Baltimore: F. Lucas Jr., 1825). This work has special significance since it was the first published atlas of a single state in the United States. For an interesting account of the Mills atlas see: Walter W. Ristow, "Robert Mills's Atlas of South Carolina," *The Quarterly Journal of the Library of Congress*, Vol. 34 (1977), pp. 52-66.

[3] Samuel Melanchthan Derrick, *Centennial History of South Carolina Railroad* (Columbia, S.C.: State Company, 1930), p. 187.

[4] *Schedule and Rules for the Running of Trains on the South Carolina Rail Road* (Charleston, S.C.: Walker and Evans, 1856), pp. 10-11.

[5] *Traveller's Official Guide of the Railroads and Steamship Navigation Lines in the United States and Canada: June, 1870* (Philadelphia: The Leisenring Printing House, 1870). A facsimile reprint by the National Railway Publication Company (Ann Arbor, Mich.: Edwards Brothers Incorporated, 1971), entry 304.

[6] South Carolina Planning Board, *Towns of South Carolina*. Pamphlet No. 8 (Columbia, S.C.: 1943), p. 52.

[7] There is no history of Calhoun County, and materials used to trace the growth of Fort Motte between 1883 and 1908 include: August Kohn and R. Lewis Berry, *A Descriptive Sketch of Orangeburg City and County, South Carolina* (Orangeburg, S.C.: R. Lewis Berry, 1888), p. 30; Ross A. Smith, *The South Carolina State Gazetteer and Business Directory: 1883, 1886-87, 1890-91* (Charleston, S.C.: Lucas and Richardson, 1883, 1886, and 1890); State Board of Agriculture of South Carolina, *South Carolina: Resources and Population, Institutions, and Industries* (Charleston, S.C.: Walker, Evans, and Cogswell, 1883), p. 693; and *The Calhoun Times*, St. Matthews, S.C., Sept. 18, 1941 and Feb. 1, 1973.

[8] For good accounts of changes in southern agriculture see: Merle C. Prunty, "Some Contemporary Myths and Challenges in Southern Rural Land Utilization," *Southeastern Geographer*, Vol. 10 (1970), pp. 1-12; Charles S. Aiken, "The Fragmented Neoplantation: A New Type of Farm Operation in the Southeast," *Southeastern Geographer*, Vol. 11 (1971), pp. 43-51; and Merle C. Prunty and Charles S. Aiken, "The Demise of the Piedmont Cotton Region," *Annals*, Association of American Geographers, Vol. 62 (1972), pp. 283-306.

[9] Julian J. Petty, *20th Century Changes in South Carolina Population* (Columbia, S.C.: University of South Carolina, Bureau of Business and Economic Research, 1962), p. 177.

[10] Gladys K. Bowles and James D. Tarver, *Net Migration of the Population, 1950-60, By Age, Sex, and Color*, Vol. I, Part 3. Economic Research Service, U.S.D.A. in Cooperation with Research Foundation, Oklahoma State University (Washington: U.S. Government Printing Office, 1966), p. 505, and Gladys K. Bowles, Calvin L. Beale, and Everett S. Lee, *Net Migration of the Population, 1960-70, By Age, Sex, and Color*, Part 3. Economic Research Service, U.S.D.A.; Institute for Behavioral Research, University of Georgia (Athens, Ga.: University of Georgia Printing Department, 1975), p. 120.

[11] U.S. Bureau of Census, "Estimates of the Population of Counties: July 1, 1973 and 1974," *Current Population Reports*, Series P-25, No. 620 (Washington, D.C.: U.S. Government Printing Office, 1976), p. 51.

[12] Bowles, 1960-70, *Net Migration of the Population*, pp. 121-143.

[13] U.S. Bureau of Census, "Estimates of the Population," p. 51.

# MIGRATION PATTERNS OF ATLANTA'S INNER CITY DISPLACED RESIDENTS

By Frank V. Keller, Sanford H. Bederman, and Truman A. Hartshorn*

The housing stock of central Atlanta, Georgia, unlike that in many older cities in the northeast United States, is dominated by detached single family residences, resulting in relatively low population densities. The quality of housing in this inner city section has declined over the years, however, and by the time massive urban renewal projects were initiated in the early 1960s over half the housing stock in the part of the city, which was to be designated as a Model Neighborhood Area (MNA), was in substandard condition. Renewal programs, once initiated, were extremely aggressive in Atlanta and together with clearance for freeway construction had a dramatic effect on housing. Central Atlanta, for example, experienced a gross loss of over 19,000 housing units in the 1960-1970 period. This decline in housing was especially acute in the MNA, where several communities lost over a quarter of their 1960 housing stock during the decade. Much of the territory affected by urban renewal and code enforcement programs has remained vacant, and little of the land on which housing was removed has been restored to residential use. While this situation is not unique to Atlanta, it is worthy of further investigation.

The city's first Workable Program for Community Improvement began in 1956, but activity utilizing federal funds did not start in earnest until 1960, which marks the advent of record keeping related to the pattern of family displacement. The common assumption has been that these families gravitated to other poor areas and made their new neighborhoods more crowded, but no systematic study has been made to support or refute this problem. The purpose of this paper, therefore, is to reveal where these movers relocated and to explain the resultant distribution within the context of intra-urban migration theory.

## ATLANTA'S MODEL NEIGHBORHOOD AREA (MNA)

The Model Neighborhood Area was located immediately south of Atlanta's Central Business District.[1] It comprised 3000 acres and consisted of six residential neighborhoods—Mechanicsville, Peoplestown, Pittsburgh, Summerhill, Adair Park, and Grant Park. With the exception of the latter two communities, all were predominantly black. The

---

*The authors wish to express their appreciation to Mr. Howard Grigsby, former Director of Relocation, Atlanta Housing Authority, for his assistance in providing background information which made this study possible.

communities originally were chosen as part of the MNA because:

> . . .all facets of blight and deterioration were located here. . . . Approximately 48,000 citizens occupied twenty percent of all the city's substandard and twenty-nine percent of the city's dilapidated housing units; shared twenty percent of the major crimes, twenty-five percent of the juvenile arrests and twenty-two percent of the welfare cases. . . . Almost half the families had incomes below the poverty level ($3000.00 per year).[2]

Selected demographic and housing data for the MNA, when compared with the remainder of the city, indicated the extent of the problem. The Model Neighborhood Area contained some of the city's oldest housing units, although advanced blight was more pronounced in the four black communities than it was in the two white communities. The 1970 *Census of Population* listed 12,242 housing units in the MNA, which represented a loss of 16.9 percent of the area's housing units from 1960. The greatest housing losses were in the communities of Summerhill and Mechanicsville—27 and 26 percent, respectively.

In 1960 the population of the MNA was 51,950. By 1970 the number had decreased to 36,000—a loss of 15,950 or 30 percent of the total. The communities of Mechanicsville and Summerhill lost about half their population during the ten year period, 1960-1970. The population of Pittsburgh and Peoplestown was reduced by more than 25 percent, while Adair Park and Grant Park (the two white communities) experienced insignificant losses. Population losses in Mechanicsville and Summerhill are attributed to the clearance of land for the Atlanta Stadium and the I-75/85 downtown expressway connector and the demolition of unsafe housing structures. Housing demolition and subsequent population losses during the study period (May 1969-December 1972), however, were largely the result of Urban Renewal and housing code displacement.

## WHERE DID INVOLUNTARY MOVERS GO?

From the time record keeping began until 1972, over 6300 families and individuals in Atlanta were forced to leave their homes because of some publicly sanctioned program. In the MNA, over 800 families and individuals were moved involuntarily between May 1969 and December 1972. From this group, a sample of 203 relocation records (25%) were randomly selected for analysis. In order to answer the question "Where did involuntary movers go?" the sample data were studied to determine if distance and directional biases existed. Additionally, because 97 percent of the movers were black, the sample data were checked to ascertain if there was a specific pattern of movement to the numerous, but small black enclaves which are widely spread through suburban Atlanta.

*Distance Bias*

The first step in examining the nature of movement from the MNA was to plot each move destination on a map by block and census tract. At the same time, rings centered on the MNA were drawn at two mile intervals to a distance of six miles out (Figure 1). The number of moves to each ring was recorded, and each group was sub-divided to reflect the reason for displacement (Table 1). Of the 203 moves, 56 percent (114 moves) were made within the inner-most ring (0-1.9 miles). Conversely, only 4 percent of the moves were made beyond the six-mile radius. The two rings between 2.0 and 5.9 miles received the remaining 40 percent of the moves. Two significant facts emerge: (1) the number of moves decreased as distance increased from the origin of displacement, and (2) of those who moved within the 0-1.9 mile ring, two-thirds actually relocated in the MNA. Many of the movers never left their original census tract.

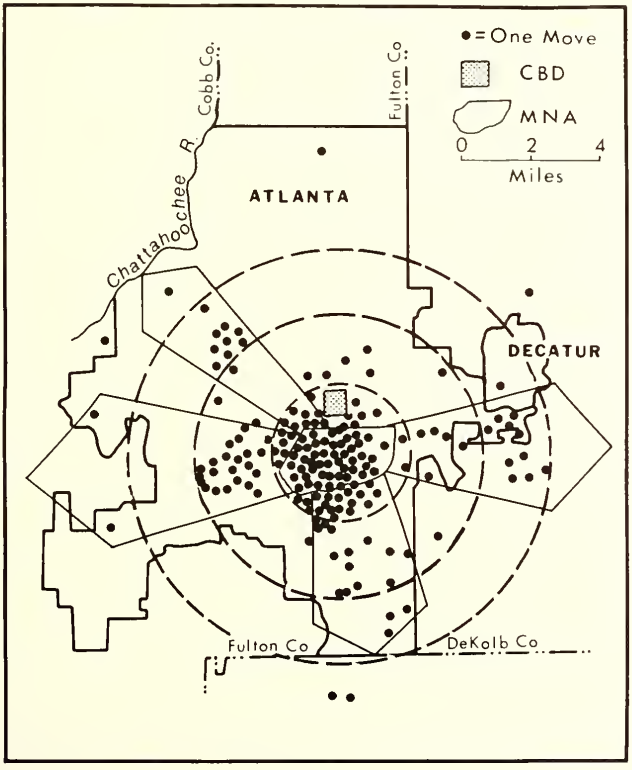



Figure 1

New Residence Locations of Involuntary Movers, Model Neighborhood Area, May 1969-December 1972. Source: Model Neighborhood Area Relocation Records.

TABLE 1

DISPLACEMENT AND TYPE BY RING CATEGORY

| Distance in Miles | Total Moves | | Displacing Entity | | | |
|---|---|---|---|---|---|---|
| | | | Urban Renewal | | Code Enforcement | |
| | No. | % | No. | % | No. | % |
| 0 - 1.9 | 114 | 56.2 | 68 | 60.1 | 46 | 51.1 |
| 2.0 - 3.9 | 48 | 23.6 | 31 | 27.5 | 17 | 18.8 |
| 4.0 - 5.9 | 33 | 16.2 | 9 | 8.0 | 24 | 26.7 |
| 6.0 + | 8 | 3.9 | 5 | 4.4 | 3 | 3.3 |
| Total | 203 | 100% | 113 | 100% | 90 | 100% |

Source: Compiled by Authors

Although distance decay was quite apparent in the moves, there was an irregular distribution within the two-mile ring. Indeed, analysis at a larger scale indicated that the moves were limited to specific sectors within the inner ring (Figure 2). For example, predominantly white Grant Park and Adair Park, both within the MNA, received only four moves. To the north, the CBD served as a major constraint to movement in that direction. Moves within the MNA were made to existing standard housing and to public housing projects located mainly in the Mechanicsville community. Some of these moves within the MNA were directed to blocks immediately adjacent to the areas of displacement. Moves outside the MNA, but within the two-mile ring, were limited primarily to public housing to the south and northwest.

The major factor responsible for distance decay in the involuntary moves seems to have been familiarity with available housing within the income range of the displaced families in nearby blocks and neighborhoods. Nevertheless, a problem emerged for those families or individuals who remained within the two-mile ring. They were generally faced with housing conditions similar to those they had left; these conditions included very low value units, a high degree of substandardness, and overcrowding.

*Directional Bias, Search Behavior, and Public Housing Constraints*

An examination of moves beyond the two-mile ring indicated that they were not uniformly clustered, but rather, followed a sectoral alignment in four general directions: (1) eastward into DeKalb County and the City of Decatur; (2) westward into the black residential wedge towards the Chattahoochee River; (3) northwestward towards Cobb County, especially along Bankhead Highway, and (4) southeastward into South Atlanta and South DeKalb County (Figure 1). All of these sectors were either predominantly black or in the process of racial transition in 1970. The availability of low and moderate cost single family housing in these areas within the income range of those displaced is a factor responsible for the occurrence of bias in these four directions.

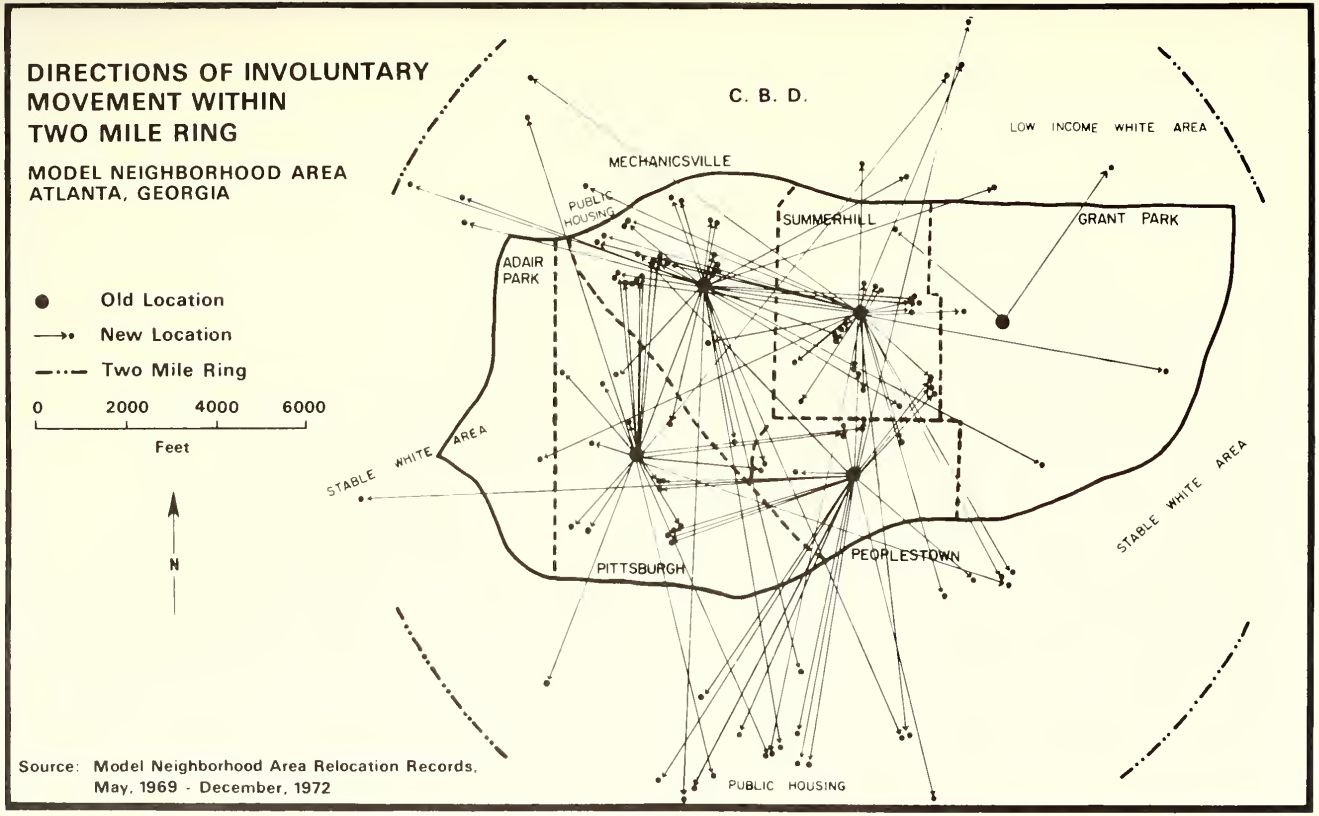

DIRECTIONS OF INVOLUNTARY MOVEMENT WITHIN TWO MILE RING
MODEL NEIGHBORHOOD AREA
ATLANTA, GEORGIA
Old Location
New Location
Two Mile Ring
0 2000 4000 6000
Feet
N
C. B. D.
LOW INCOME WHITE AREA
MECHANICSVILLE
PUBLIC HOUSING
SUMMERHILL
GRANT PARK
ADAIR PARK
STABLE WHITE AREA
STABLE WHITE AREA
PITTSBURGH
PEOPLESTOWN
PUBLIC HOUSING
Source: Model Neighborhood Area Relocation Records, May, 1969 - December, 1972

Figure 2

Equally important is the blocking factor of the CBD and the predominance of higher income areas to the north. And finally, the distribution of public housing itself was an important variable, because not all moves were to the private sector. In view of the distinctiveness of each type of move, those to public housing were examined separately from those to the private sector.

The moves to private housing were specifically examined to determine if relocation patterns conformed to typical intra-urban search behavior regularities. The literature on this topic suggests that urban families relocate predominantly further from the old residence in relation to the Central Business District or secondarily, closer in, rather than moving crosstown.[3] Although the directional bias is the norm for outlying families, inner city residents have been shown to have more circular than eliptical relocation patterns. Brown and Holmes, for example indicate that these moves are "compact and localized."[4]

Housing meeting the tastes and preferences of movers was typically found further out from the downtown because it was frequently newer and the neighborhood more compatible with household aspirations than alternative areas available in a cross-town move. In the latter case the housing would be quite similar in age and character to the house being vacated and not as desirable. In other words, the search for new housing conformed to an elongated axis created by joining present locations to the center of the city. Specifically, an angle formed by the old and new residences and the CBD would be close to 0° to 180° when moves followed this arrangement.[5]

Individual movement angles in relation to the old residence, new residence, and the CBD were measured and aggregated to verify validity of the axial tendency, or alternatively, the circularity hypothesis. The percentage of moves of each of six angle categories is shown in (Table 2). Nearly equal frequencies in each category were found rather than a polarization towards the extremes of 0° and 180°. This is no doubt due to the cramped area to which searches were of necessity confined by

TABLE 2
FREQUENCY OF RELOCATIONS IN ANGLE CATEGORIES

| Angle | Number | Percent |
|---|---|---|
| 0 - 30° | 15 | 12.5 |
| 31 - 60° | 10 | 8.3 |
| 61 - 90° | 23 | 19.2 |
| 91 - 120° | 25 | 20.8 |
| 121 - 150° | 26 | 21.6 |
| 151 - 180° | 21 | 17.5 |
| Total | 120* | 99.9 |

*Public and temporary housing moves were not recorded in this tally because of the apparent policy to restrict projects to certain geographic areas of the city. This would create an artificial bias.

Source: Calculated by Authors (after Adams, 1969)

external forces. The paucity of standard low-cost units in the generally declining inner city environment and the spatial restrictions of a segregated housing market compounded the problem. Strongly axial intra-urban migration search strategies apparently did not operate in the inner city in this case, even though moves were confined to specific growth "corridors".

The distribution of public housing was also important in determining the directional character of the movement (Figure 3). In the City of Atlanta, public housing facilities play a significant role in rehousing families that are displaced by urban renewal and code enforcement programs. Over a third of all the moves in the sample went to public housing.[6] Considering the fact that low income people were involved in these moves, one wonders why the percentage of moves to public housing was not even higher. Perhaps this phenomenon was partially explained by the existence of sales and rental housing within the income

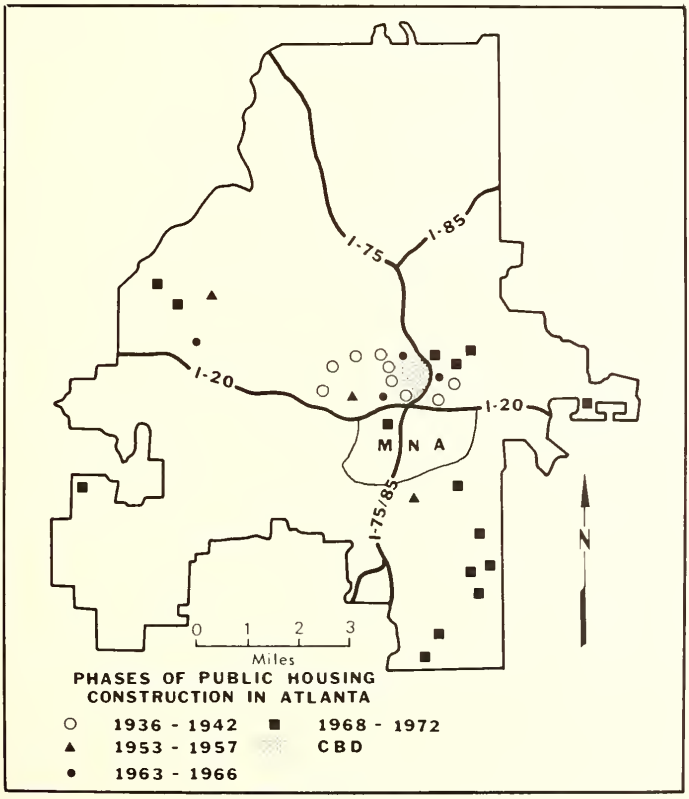



Figure 3

Construction of Public Housing in City of Atlanta, 1936-1972. Source: Atlanta Housing Authority.

and price range of displaced families in combination with the economic incentive provided by the relocation payments they received.[7]

Over 50 percent of the moves to the 4.0-5.9 mile ring were to new public housing projects (Figure 3). It is important to note that displaced families were moving to newer public housing, whereas moves to rental and sales housing consisted of older close-in units. The reason why families moving into public housing did not move to older close-in public housing projects is explained by the low vacancy rates in these projects and by the fact that many were already inhabited by both elderly whites and blacks. This was especially the case with the housing projects immediately north and west of the CBD.

Public housing projects traditionally have been placed in low income areas in Atlanta and this policy has resulted in confining the poor to specific locations. However, federal regulations now require that housing for low income families be located in the vicinity of the job market, which is rapidly decentralizing from the inner core to suburban locations.[8] Local officials, under a federal court order, organized a committee for selection of public housing sites whose main objective is to "... develop a plan to disperse future projects into the northern portion of the city ... within a ten mile radius of the city limits."[9]

The future distribution of low income families would certainly change from the present configuration if and when the dispersal plan becomes a reality. A polynucleated pattern could emerge whereby small groups of poor black people are relocated to more affluent suburban areas. On the other hand, the 1973 housing moratorium and the current economic situation may make it virtually impossible for the development of new housing in the suburbs, especially for the inner city poor.

*Traditional Black Enclaves*

Although public housing projects are not widely distributed throughout the metropolitan region, at least nine traditionally black residential enclaves were extant throughout the then five-county S.M.S.A. during the study period. One might have suspected that these enclaves would have served as potential destinations for displaced inner city families; yet according to the sample, zero moves were directed to these widespread neighborhoods. Most outlying black enclaves are located outside the city limits of Atlanta, and current policies and the absence of housing resources preclude the distribution of low income families into these outlying areas.

## CONCLUSIONS

When residents of the Model Neighborhood Area were forced to leave their homes because of urban renewal or code enforcement, new housing options available to them were limited. Low family incomes

often precluded either the purchase of medium value homes or renting adequate quarters despite the fact that they received relocation assistance. Because more than 95 percent of those affected were black, their subsequent housing demand was satisfied within the territory of black ghetto space. The findings of this study indicate that the majority of the displaced moved less than two miles from old residences. Most of these movers remained in the MNA. Although directional biases were evident for moves in the aggregate, search behavior patterns of individual households revealed that relocations were widely dispersed about the original residence in a restricted space rather than predominantly further from the old location in relation to the CBD. The notion that these moves conformed to the axial outward migration framework, frequently the case in middle class neighborhoods, was not supported. The majority of the involuntary movers relocated in housing in neighborhoods within the sectoral confines of the black residential space in the city.

## FOOTNOTES

[1] Federal funding for the Model Cities Program ended in December, 1974. The programs not terminated at that time in Atlanta were subsumed by the Department of Community Development.

[2] Leflagi, Inc., *Atlanta Model Cities Housing Strategy*, Atlanta, 1972, p. 5.

[3] John S. Adams, "Directional Bias in Intra Urban Migration," *Economic Geography*, Vol. 45 (October, 1969), pp. 302-323, and Truman A. Hartshorn, "Inner City Residential Structure and Decline," *Annals*, Association of American Geographers, Vol. 61 (1971), pp. 72-96.

[4] Lawrence A. Brown and J. Holmes, "Search Behavior in an Intra-Urban Migration Context: A Spatial Perspective," *Discussion Paper Number 13*, Department of Geography, the Ohio State University, 1970, and Eric G. Moore, "Residential Mobility in the City," *Resource Paper Number 13*, Commission on College Geography, Association of American Geographers, pp. 172, 16, 302-323.

[5] Ronald Abler, John S. Adams, and Peter Gould, *Spatial Organization: The Geographer's View of the World* (Englewood Cliffs, N.J.: Prentice Hall, 1971), and Adams, "Directional Bias".

[6] Chester Hartman, "The Housing of Relocated Families," *The Journal of the American Institute of Planners*, Vol. 30 (1964), 266-286, discovered that on the national level only 17 percent of the families displaced by urban renewal actually moved into public housing. See also, Daniel Thurz, *Where Are They Now: A Study of the Impact of Relocation on Former Residents of Southwest Washington, D.C.* (Washington, D.C.: Health and Welfare Council of the National Capital Area, 1969.)

[7] Displaced families and individuals received on the average of about $400 for moving expenses. Also, home owners who were forced to move received between $7500-$8000 in replacement housing benefits, but only if they purchased another house. Home owners relocating in public housing could not receive replacement housing benefits.

[8] Sanford H. Bederman and John S. Adams, "Job Accessibility and Underemployment," *Annals,* Association of American Geographers, Vol. 64 (1974), 378-386 and Sid Davis and Truman A. Hartshorn, "How Does Your City Grow: The Changing Pattern of Activity Location in the Atlanta Metropolitan Area," *Atlanta Economic Review,* Vol. 23 (July-August, 1973), pp. 4-13.

[9] Joint Committee for Selection of Public Housing Sites, *Dispersal of Public Housing* (Atlanta: City of Atlanta, 1972.)

# GEORGIA'S CRENELATED COUNTY BOUNDARIES

By Burke G. Vanderhill and Frank A. Unger

The boundaries of seventy of the 159 counties of the State of Georgia exhibit irregularies in the form of rectangular offsets (Figure 1). When in close proximity, the offsets are reminiscent of medieval battlements in profile (Figure 2). For this reason the term "crenelation" is suggested for the phenomenon. Save for seven counties in eastern Alabama, crenelated boundaries are found nowhere else in the United States. It was to explain this unusual property of Georgia county lines, and to establish the conditions under which it occurred, that the present study was undertaken.

The possibility that crenelation resulted from simple gerrymandering soon was dismissed, for the rectilinear pattern of the boundary offsets is remarkably consistent throughout the affected counties. Despite local aberrations, the recurring shapes and sizes of the offsets suggested that they reflect the prevailing pattern of land subdivision. Analysis of the distribution of the crenelated boundaries within the state supported this idea.

Crenelation does not occur in the eastern one-third of the state, that part which was first settled and in which the metes and bounds system of land description prevails, but is found only in those areas opened to entry by means of Georgia's unique land lotteries. There were six separate lotteries from 1805 to 1832, and in each case a large block of land was surveyed into square lots, in most instances oriented to the cardinal points of the compass. Numbering schemes varied from block to block as did the size of the lots.[1] Boundary offsets obviously correspond to survey lots, or fractions thereof, and their dimensions and orientation are derivative from the schema of the land districts in which they are found.

While crenelation may be associated with Georgia's system of land lots, it is not a necessary concomitant of such a system. When counties were first established in central and western Georgia at the time of the land lotteries they were given straight, compass-line boundaries wherever physical features were not used. It seemed likely, therefore, that crenelation resulted from the adjustment of county lines to certain patterns of land ownership. If this were so, unusual circumstances must have prevailed in Georgia in order for such a large scale manipulation of boundary lines to be accomplished. Among these circumstances, it was found, was an indulgent legislature which for years gave landowners along county borders relatively free choice as to their county of residence.[2]

Figure 1. Georgia's crenelated counties.

Investigation revealed that there is a tradition of boundary line modification in the State of Georgia. As early as 1820 it was felt necessary to enact a law forbidding the alteration of county boundaries by citizens who might change the alignment of county line roads around their houses for the purpose of putting their property into another county, or "to evade civil process, militia duty, (or) payment of tax. . . ."[3] It was not long, however, before legislators began to honor requests for boundary changes. The first case of record, approved by the General Assembly of 1828, added the residence of a William Robertson, "on the north side of Little River," in Wilkes County, to the county of Taliaferro, but with the proviso that any case or cases pending against Mr. Robertson in the courts of Wilkes County would not be interfered with or prejudiced.[4]

Table 1 summarizes those boundary changes enacted by sessions of the Georgia Legislature from 1828 to 1877 which led to crenelation. As can be seen, the tempo of such changes increased until the middle 1850s reaching a maximum during the 1855-56 session when forty-six Acts containing sixty-three changes resulted in the transfer of 122 lots and residences between counties. So heavy was the volume of boundary line legislation that, beginning in 1851, such legislative activity was alloted a special section of the official sessional reports. Crenelation activity declined during the Civil War years but increased again following the war, until brought to a virtual halt by the Constitutional Convention of 1877 and the resultant Act of 1879 which relegated to the counties responsibility for transferring boundary lots between counties.[5]

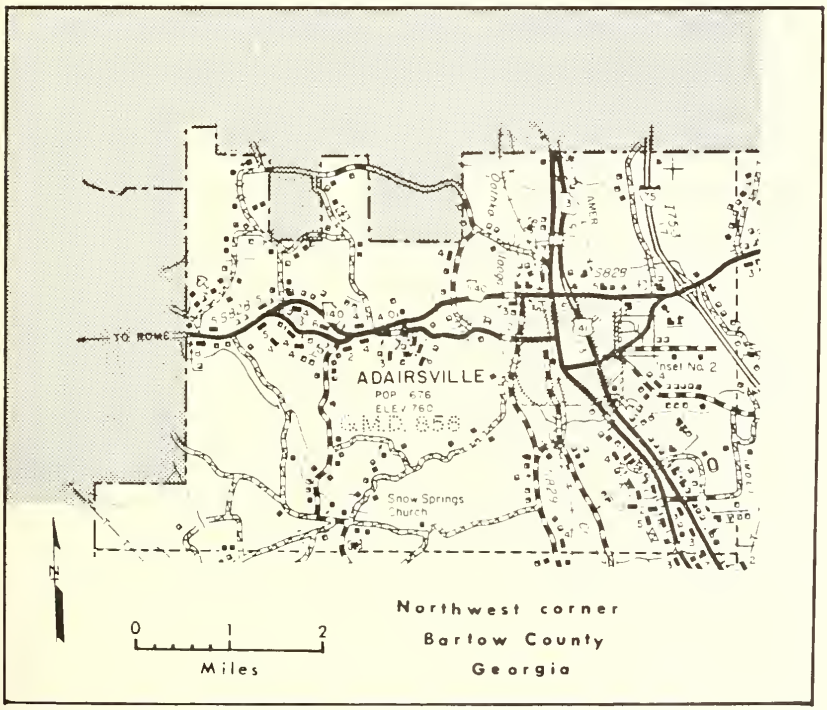



Figure 2. An example of creneation, northwest corner of Bartow County.

Much of the county boundary tinkering involved redrawing the lines around units of property, but there were also numerous cases in which only the residences and "outhouses" and the land immediately associated with them were transferred from one county to another. Sometimes these moves were only temporary. As an example, in 1840 the residence of one Ely Jones was taken from Clark County and added

TABLE 1
GEORGIA COUNTY BOUNDARY CHANGES WHICH RESULTED IN CRENELATION, 1828-1877

| | Number of Changes |
|---|---|
| 1828-1832 | 5 |
| 1833-1837 | 8 |
| 1838-1842 | 26 |
| 1843-1847 | 16 |
| 1848-1852 | 72 |
| 1853-1857 | 113 |
| 1858-1862 | 95 |
| 1863-1867 | 49 |
| 1868-1872 | 50 |
| 1872-1877 | 97 |

to Walton County, but the transfer was to remain in effect only as long as Mr. Jones lived there.[6] Such boundary changes were rarely specific in their references to land area and lot numbers, and the actual alterations were made at the county level. Local record-keeping left much to be desired, and in many cases the records have deteriorated or have been lost through mishandling, fire, or flood. Deficiencies in county records underlie most of the recent or current boundary disputes in Georgia.[7]

If boundary changes were debated or contested in the Georgia Assembly, sessional reports do not reveal the fact. Only the official acts are included, thus the rationale for the changes is not generally on record. It can be assumed that landowners sought adjustments which would in some way work to their benefit or convenience. Occasional references to rivers or roads seem to imply that improvement of access may have been a frequent concern. Lots acquired sight-unseen may have been bisected by sizeable streams. Tax differentials across county lines might have provided a motive for seeking alteration of boundaries. The desire to run for public office in a particular county may have entered in. In one exceptional case, in which the farmstead of a Samuel Tarver was removed from the county of Washington and placed in Jefferson County, the specific purpose was clear. Section 2 of this act states:

> "And be it further enacted, that the official acts of the said Samuel Tarver as a Justice of the Inferior Court of the county of Jefferson, be, and the same are hereby, legalized and made valid."[8]

Non-resident Tarver obviously was in need of legislative succor.

A careful perusal of the Georgia legislative record reveals that it would be an oversimplification, however, to ascribe county line changes to purely personal whims. It is significant that the greatest number of

such changes followed the formation of new counties.[9] During the time of the land lotteries, extremely large county units had been established for the administration of new and sparsely settled territories. As population increased over the years, the original counties were subdivided and then resubdivided. Each time, county boundaries were drawn along survey lines, or along roads or rivers, apparently without reference to the patterns of existing land ownership. In a time when the location of county seats was deemed to be of vital importance and allegiance to particular towns was strong, many landowners were in effect cut off by new political boundaries from centers in which they had conducted both their official business and their trading. Occasionally they found themselves on the wrong side of the line when new county seats were designated at otherwise convenient points. Those whose properties were divided by the new county lines became taxpayers in more than one county, a matter of particular inconvenience in a day when taxes were paid in person and travel was by wagon, carriage, or horseback. Public office holders in some cases became non-residents and thereby ineligible for their posts. To run for office in a new county might require facing an unfamiliar electorate. In the light of these and other problems, it is not difficult to understand a rash of requests for boundary adjustment. What is not yet clear is why legislators were so responsive to such demands.

The answer seems to lie principally in the composition of the Georgia Legislature during the period of extensive boundary modification. A check of the roster of the 1860 body is revealing. The great majority of legislators were identified either as farmers or planters.[10] In this circumstance, county line questions had a sympathetic audience and apparently were handled routinely in much the way that so-called "local bills" are handled today.

By the time of the Constitutional Convention of 1877, the boundaries of nearly one-half of the counties in Georgia were to some degree crenelated and the burden of dealing with boundary bills had become irksome.[11] The Constitution adopted by that convention established certain procedures for changing county boundaries, the chief component of which was to pass responsibility to the counties affected. These procedures were completely revised by the state assembly in 1879 and extensively modified again in 1880. Acts 468 and 469 of the 1880 session were subsequently codified and continue to serve as the basis for boundary change policy in the State of Georgia.[12]

The present actions required of a citizen seeking to accomplish a change in a county line are rather complicated and time consuming. He must begin with a petition stating the situation in great detail and the reasons for the desired change, to be followed by an advance, published, notice of his application. A grand jury must be empanelled in each county to consider his application, and if the judgments are favorable,

the case will be further considered by certain county officials, commonly the Board of County Commissioners in each of the affected counties. If these hurdles are crossed, the results must be subjected to public scrutiny over a stipulated period of time. It is not surprising that few boundary changes have been recorded since the legislative session of 1877. In fact, most boundary adjustments during the last one hundred years have related to the settlement of disputes resulting from resurveys of Georgia lot lines.

The process of crenelation in Georgia and the conditions under which it occurred may now be understood in a general way, but it was thought that further insights could be gained through an examination of county line alteration in a specific case. Calhoun County, in the southwestern portion of the state, was selected as an appropriate and relatively convenient example.

## CALHOUN COUNTY: A CASE STUDY

Calhoun is one of a dozen counties created entirely from original Early County, which was laid out in 1818 at the time of the land lotteries. Early comprised a large block occupying the southwestern corner of the State of Georgia. In response to population increases, the northeastern section of original Early was designated as Baker County in 1825, and in 1854 Calhoun was formed from parts of both Baker and the residual Early. The eastern half of the new county, within the Third Land District, was taken from Baker, while the western half, comprising portions of the Fourth Land District, came from Early.

Although Calhoun County is split between two land districts, both were developed within the survey pattern of original Early County and share its idealized system of 250-acre land lots. At first glance this would seem to ensure uniformity throughout the county, and early maps, possibly created *in vacuuo* in some draftsman's studio, presented exactly such a picture. The actual ground surveys, however, proceeded from separate bases and were conducted by various surveying parties, producing a number of discrete survey blocks whose lot lines fail to coincide with those of neighboring blocks. Moreover, land lots rarely are of standard size and often are grossly misshapen.

The designated boundaries of Calhoun County (Figure 3) were in part natural and in part cadastral. The eastern boundary was drawn along Chickasawhatchie Creek, a feeder in the Flint River system, and a three-mile reach of Spring Creek in the southwest was similarly used. The northern and southern lines conformed to existing land district boundaries and at the time were assumed to be true east-west lines. The western boundary, where Calhoun bordered what was left of Early and also the new Clay County formed out of Early at the same time, was drawn along a north-south survey line between specified land lots.

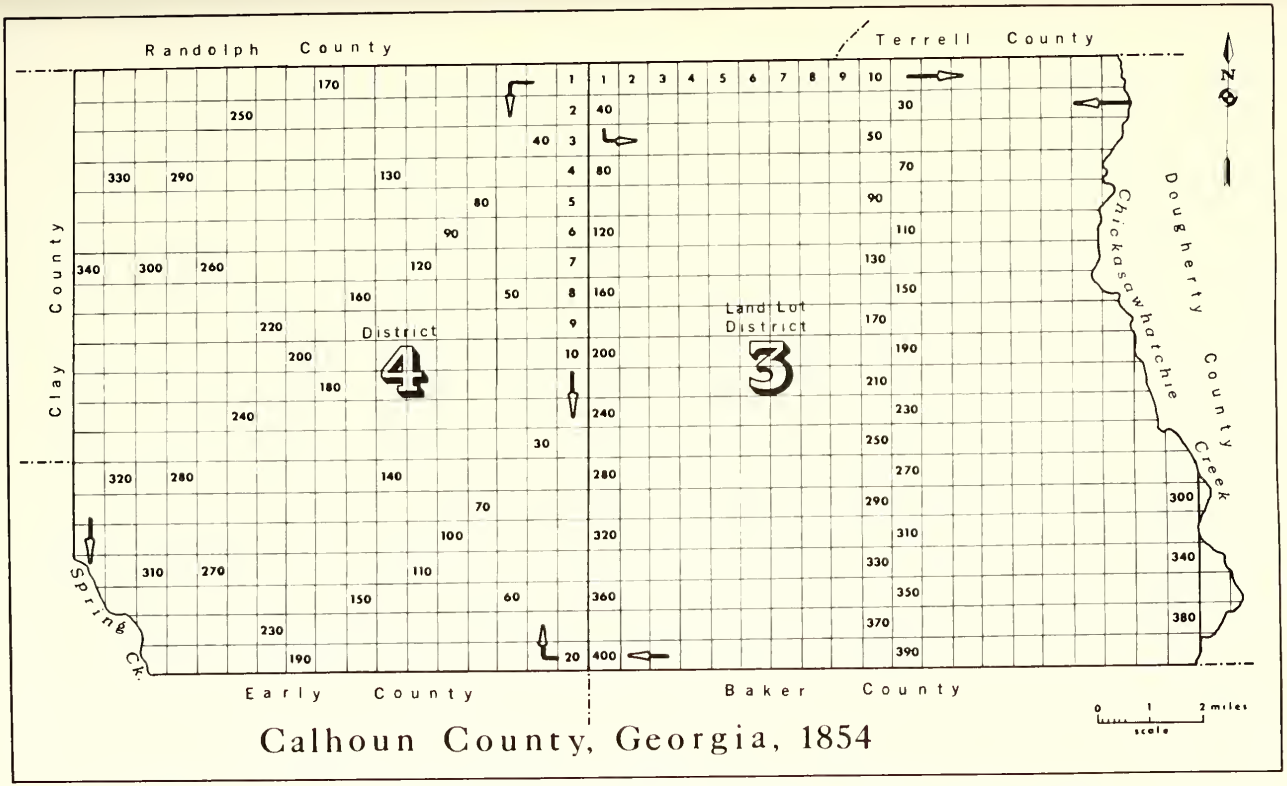



Figure 3. Layout of Georgia lots as originally conceived, Calhoun County, 1854.

The question of the county seat was addressed in the creating act and selection of a centrally located point for this purpose was authorized. At the county level, two crossroads settlements in the approximate center of the new county vied for the honor. A compromise site eventually was chosen midway between the two and the town of Morgan was established as the county seat.[13]

The process of crenelation was set in motion immediately upon the establishment of Calhoun County, and in the first session of the Georgia Assembly following that event, the session of 1855-56, four separate bills were passed transferring parcels of land between the new county and its chief northern neighbor, Randolph. The counties of Randolph and Terrell, the latter touching Calhoun in the northeast, had been created out of the original Lee County in 1828 and shared its system of 202½-acre land lots. Property exchanges along this line, however, have not involved Terrell.

The first transfer act, approved in December of 1855, must have been an error, for it added an interior lot, number 284 in the Fourth District of Calhoun, to the county of Randolph, whose boundary was a good eight miles away[14] (see Figure 4 for all Calhoun County lot changes). In a subsequent act of the same session, border lot 294 in the Fourth District of Calhoun was transferred to Randolph, which was undoubtedly the intention of the previous act. Strangely, the transfer of lot 284 was never repealed, but the matter was ignored at the county level. As for lot 294, what happened illustrates the chaotic boundary situation of the time. The earliest available map of Randolph County, prepared for the Secretary of State in 1867, places lot 294 in Calhoun County, while another state authorized map just four years later depicts it as in Randolph. In 1892, a Calhoun County map shows lot 294 as part of Randolph and a deed recorded in Calhoun in 1893 corroborates this. A 1924 agriculture map and a 1930 railroad map in the State Archives both place this lot back in Calhoun County but the 1941 Works Progress Administration Rural Property Survey of Calhoun relegates it to Randolph.[15] Meanwhile, for undetermined reasons, Randolph County does not include this legislatively transferred lot and taxes are currently being paid to Calhoun County by the recorded owner. Current maps of both counties show lot 294 as being part of Calhoun County; Calhoun claims it, Randolph does not openly dispute the claim while official records fail to substantiate the return of this boundary lot to Calhoun.[16] Today, this lot is considered by both counties as a part of Calhoun, perhaps in recognition of its long standing *de facto* jurisdictional control by Calhoun County.

The original rationale for adding lot 294 to Randolph County is not indicated in the record. It may have related to its proximity and accessibility to Cuthbert, the county seat of Randolph. In any case, it would appear that the establishment of the new county of Calhoun

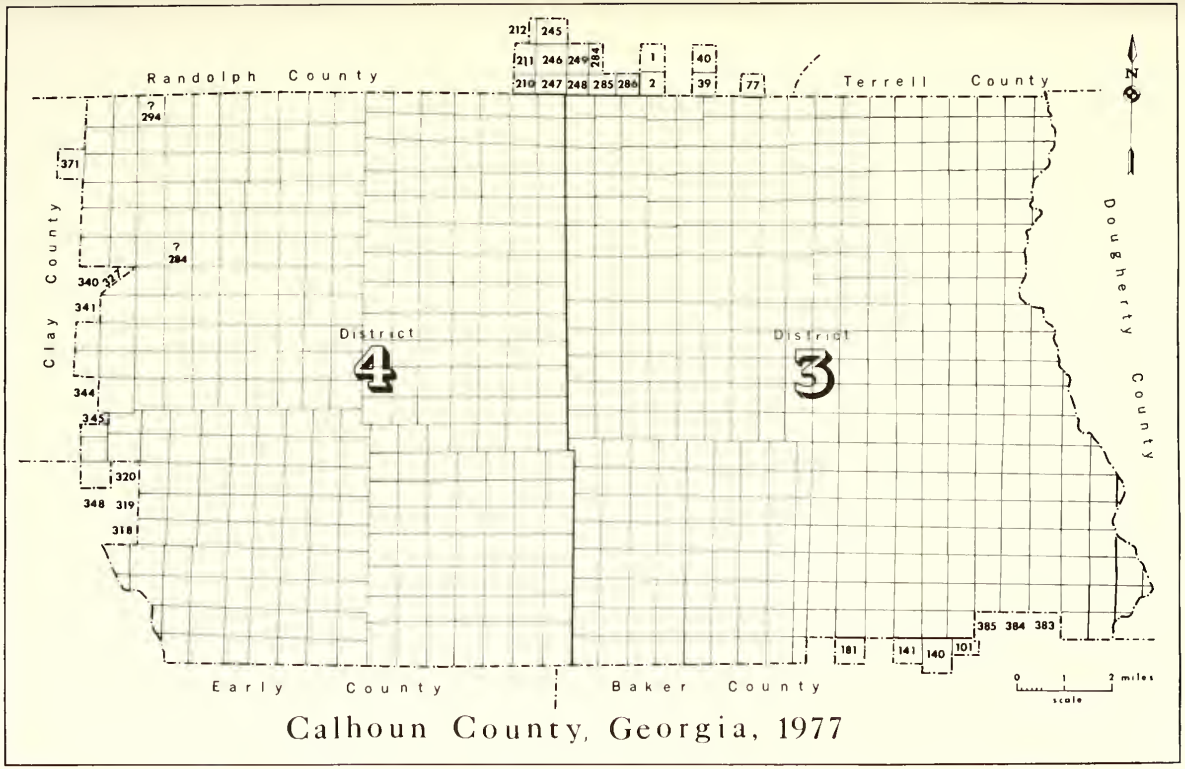



Figure 4. Boundary crenelation, Calhoun County, 1977. Distortion in the shape and size of land lots is evident.

should not have created any division of landholdings that did not exist prior to 1854, for the northern boundary of Calhoun coincided with the northern edge of original Early, drawn in 1818, and patterns of ownership should have long since adjusted to that reality.

The boundaries of Calhoun have undergone their most extensive remodeling in the area immediately north of Morgan, the county seat. The first changes here, introduced as a section of the Act transferring lot 294 to Randolph, added lots 210, 211, 246, and 247 of the Fifth District of Randolph to the county of Calhoun. During the same legislative session, lots 1 and 2, in the Fourth District of Randolph, were also added to Calhoun. Through what was probably an oversight stemming from the crush of county bills pushed through the 1855-56 session, a second and identical transfer of lots 210, 211, 246, and 247 was approved only a week after the initial act. Questions of legislative procedures aside, the basic factor in the alteration of the county line in this instance seems to have been the close proximity of these land lots to Morgan in contrast to the much greater distance to Cuthbert, the county seat in Randolph. The likelihood of such a local prevailing factor is suggested in the transfer to Calhoun in 1870 of lots 39 and 40 from the Fourth District of Randolph. The justification for the action in this instance was given as follows:

> "Whereas, the residence of the two Mrs. Newberrys are situated upon lots of land numbers thirty-nine and forty in the fourth district of Randolph County, eighteen miles from the court-house of said county; and whereas they live only five miles from the court-house of Calhoun County . . . ."[17]

Factors underlying crenelation are not necessarily persistent. Lots 210, 211, 246, and 247 have a particularly checkered history, suggesting changing conditions or perhaps changeable man. In 1863 these four lots were returned to Randolph County without explanation. The Act returning them was then repealed in 1865, restoring the four lots once more to Calhoun. During the 1860 session, lots 77 and 114 and the west half of 115, in the Fourth District of Randolph, were added to Calhoun. In 1865 the transfer of the latter two units was repealed, but lot number 77 was left within Calhoun.

Before legislative responsibility for boundary matters was ended several more parcels of land were added at the northern edge of Calhoun County. Lots 285 and 286 of the Fifth District of Randolph were transferred in 1876, followed in 1877 by lots 248, 249, 245, the west half of 284, and the east half of 212, also in the Fifth District of Randolph. The relative lateness of these transfers suggess that new factors were involved. The period was one of land speculation and turnover associated with the break-up of pre-Civil War patterns of land ownership and operation in the Deep South. The peripheral position of these lots with

reference to those transferred earlier probably represented reorganization or expansion of landholdings by Calhoun county citizens.

Another group of boundary offsets appears along the southeastern edge of Calhoun County where it adjoins Baker. Property transfer was initiated here in 1860 when lots 383, 384, and 385 in the Third District of Calhoun were added to Baker. Since Calhoun County had been formed out of Baker, it seemed possible that this might be a case of reuniting a landholding split by the new county line. Examination of the deed records of Baker County revealed that these three lots were indeed parts of a large family holding, most of which lay south of the district line. Unfortunately, the record cannot be traced back beyond 1867, and the timing of the transfer of the lots to Baker does not negate the possibility that they may have been acquired after the establishment of Calhoun County. Subsequent boundary alteration in this district points also to land acquisition as a factor, but from the Calhoun side of the district line. In these cases, lot 181 in the Seventh District of Baker was added to Calhoun in 1863, and lots 140 and the north half of 101 were similarly transferred in 1877.

During the investigation, a striking boundary problem was discovered along this segment of the Calhoun-Baker line. Land lot 141 of the Seventh District of Baker was found to have overlapping jurisdiction and ownership. Tax rolls, property deeds and most maps of Calhoun County identify an unusually large lot, number 388, mainly within Calhoun's Third District, which extends across the district line so as to include the northern half of lot 141. The county boundary usually is shown offset to accomodate the southern end of lot 388. Baker County, on the other hand, recognizes no such boundary offset, for their tax records and deed books include lot 141, owned in its entirety by a Baker County resident, thus overlapping with the end of Calhoun's lot 388. To confuse the issue, the present official map of Calhoun County ignores the evidence of county tax and deed records and identifies lot 141 rather than an extended 388, but includes it within Calhoun. If the boundary was ever altered by an official act to include any part of lot 141 in Calhoun County, there seems to be no record of it.[18] It was not done at the legislative level. Meanwhile, landowners from both Calhoun and Baker have been paying taxes on the same parcel of land for years, taxes based upon duly recorded deeds. That an overlapping ownership has continued undetected may be explained by the fact that the tract in question is largely forested, and there has been only marginal penetration by clearing from each side.

The western margins of Calhoun County came under modification in 1872 when a legislative act transferred the homesteads of Moses Fain and Ebenezer Fain to Clay County. While the property was not specifically identified, a search of the deed books of Calhoun County revealed that the parcels were lots 344, 341, and the northwest half of 327.

The half lot had been purchased in 1869 as an expansion of a large landholding mainly within Clay County. Another Fain lot, number 340, was added to Clay County in 1875, and a year later the north half of lot 345 was also transferred to Clay. This parcel was not acquired by the Fains until eight months after its transfer, point to a remarkably cooperative legislature. The crenelation of the central section of Calhoun's western boundary thus was entirely the product of the land operations of the Fain brothers.

North of the Fain properties, lot 371 of the Fifth District of Clay was added to Calhoun in 1876 and, at the same time, south of the Fains, lots 318, 319, 320, and 348 in the Fourth District of Calhoun were transferred to the county of Early. Records are discontinuous, but the strong role of specific families in the ownership patterns suggests that here too acquisition of border lots by citizens of the adjoining counties was involved.

Only a single county line change affecting Calhoun County has been authorized by the legislature since 1877. This was the abortive transfer of the greater part of the city of Arlington from Calhoun to Early under an Act of 1945. Much of the growth of Arlington had been toward the south, across the district line in Early County. While Calhoun took the case to court, Early exercised jurisdiction over the disputed area. In 1949 the Act was declared unconstitutional and the part of Arlington within Calhoun County was restored to Calhoun.

Demands for boundary modification have not entirely been laid to rest. In 1975 the owner of an 18-acre part of lot 77, on the northeastern edge of the county, approached the Board of County Commissioners of Calhoun County to have his land transferred to Randolph. This move was preceded by a series of events arising from a resurvey of the county line in that area in 1963 which indicated that his land was in lot 77 and thus a part of Calhoun County while he had been paying taxes to Randolph. He continued to pay taxes to Randolph until 1974 when he was forced to remit to Calhoun. While the request was in part based upon the argument that lot 77 was originally within Randolph, having been added to Calhoun in 1860, the real purpose seems to have been to escape the higher tax rate of Calhoun County. The request was denied.[19]

Several conclusions may be drawn from the case study of Calhoun County. The subdivision of counties did disrupt established patterns, not only of landholding but of trade and circulation, but it seems that the location of county seats was at least as significant an initial factor in crenelation as was the delineation of the boundaries themselves. Once a precedent had been established, the system for boundary change became a permissive one, lending itself to abuse and creating boundary instability. Land transferred in one direction could just as easily be transferred in another. Record-keeping has been inconsistent and records are incomplete. While it is possible to verify action taken at the

state level, what occurred within or between counties is difficult to document. Lastly, there seems to have been little inclination on the part of county officials to question the accuracy of boundary crenelations except in response to particular challenges.

## FOOTNOTES

[1] Lots of 202½ acres are standard in much of interior and west Georgia, but a 250-acre lot was adopted in the southwest, 490 acres was used in the south-central area, 160 acres was the rule in the northern counties, while 40-acre "gold" lots were surveyed in the Blue Ridge. In the Appalachian foothill zone, both 250- and 490-acre lots were adopted. Sam B. Hilliard, "An Introduction to Land Survey Systems in the Southeast," *Geographical Perspectives on Southern Development,* Vol. 12 of *West Georgia College Studies in the Social Sciences.* Edited by John C. Upchurch and David C. Weaver, Carrollton, Georgia: West Georgia College, 1973, p. 3.

[2] James C. Bonner, "What is Not on the Georgia Map," *Georgia Historical Quarterly,* Vol. LI-3 (Sept., 1967), p. 259.

[3] Act of Dec. 22, 1820, *Georgia Legislative Acts,* 1820, p. 88.

[4] An Act to add a part of Wilkes County to the county of Taliaferro, Act of Dec. 22, 1828, *Georgia Legislative Acts,* 1828-29, p. 42.

[5] Mode of Transferring Boundary Lots to another County, Act of October 14, 1879, No. 259, *Georgia Legislative Acts,* 1879, p. 42.

[6] An Act to add the residence of Ely Jones, now in the county of Clark, to the county of Walton..., Act of Dec. 22, 1840, *Georgia Legislative Acts,* 1840, p. 36.

[7] Mrs. Pat Bryant, Deputy Surveyor-General, State of Georgia, Atlanta, personal letter, Nov. 9, 1976.

[8] An Act to change and define the line between the counties of Jefferson and Washington, and to legalize and make valid the official acts of Samuel Tarver as a Justice of the Inferior court of the county of Jefferson, Act of Dec. 21, 1839, Georgia Legislative Acts, 1839, p. 33.

[9] See E. Merton Coulter, "The Politics of Dividing a Georgia County: Oconee from Clarke," *Georgia Historical Quarterly,* Vol. LVII-4 (Winter, 1973), p. 475.

[10] Ralph A. Wooster, "Notes on the Georgia Legislature of 1860," *Georgia Historical Quarterly,* Vol. XLV-1 (March, 1961), p. 24.

[11] As a member of the constitutional convention, a Mr. Hill, put it, "...the county lines have often been changed for personal convenience, and for political reasons, and this sir, has sadly marred the maps of Georgia. I want the county lines drawn straight, where there are no natural boundaries." *Proceeding, Georgia Constitutional Convention, 1877,* Atlanta, August 25, 1877, p. 445.

[12] Change of County Lines and County Sites. Disputed County Lines. Part III, Chap. 23-3, *Code of Georgia, Annotated,* Book 8, Title 23, Atlanta, 1933. The pertinent references are: Secs. 23-301 and 23-302, pp. 18-20.

[13] J. C. Shippy, Clerk of the Court, Calhoun County, interview, Morgan, Georgia, Feb. 8, 1977. Morgan retains the administrative function today but little else, for the commercial activities once typical of such a county town have been captured almost entirely by the small city of Arlington, on the southern margin of the county, and by the larger city of Albany, in neighboring Dougherty County to the east.

[14] Information about this and all subsequent boundary changes affecting Calhoun County was drawn from the various sessional reports for the state of Georgia, collectively known as the *Georgia Statutes*. Only direct quotes will be footnoted herein.

[15] Map of *Randolph County, Georgia*, N. C. Barnett, Secretary of State of Georgia, Aug. 20, 1867; Map of *Randolph County, Georgia*, William Phillips, C. E., 1871; Map of *Calhoun County, Georgia*, Phillip Cook, Secretary of State of Georgia, 1892; Deed Book J, p. 273, Oct. 6, 1893, Calhoun County Property Records, Morgan, Georgia; U.S.D.A. and Georgia State College of Agriculture map of *Randolph County*, 1924; Map of *Randolph County, Georgia*, Rural Real Property Survey, W.P.A. of Georgia, Atlanta, 1941.

[16] This is made clear in Deed of Conveyance, DB 27, p. 69, 1965, recorded in Calhoun County, the pertinent part of which follows:

> "The portion of Lot of Land No. 294 above conveyed is intended to include the portion of that original lot number of the 4th Land District of originally Early County, Georgia, later Calhoun County, Georgia, and transferred by an Act of the Ligislature (sic), 1855-6, at page 127, into Randolph County, Georgia, with no further act changing the same. However, the maps of Randolph County fail to include said lot and it is the intention of the parties to include the portion of said lot above described, whether it be in Randolph or in Calhoun County, Georgia."

[17] An Act to change the line between the county of Randolph and the county of Calhoun. Public Law No. 11, Act (undated), 1870. *Georgia Legislative Acts*, 1870, p. 23.

[18] Such records were to be maintained by county officials known until recently as "Ordinaries." In the case of Calhoun County, many of the Ordinary's records were destroyed in a courthouse fire in 1919.

[19] No record of this request or denial by the Calhoun County Commissioners was entered into the official county minutes. Information about the latest attempt to transfer land from Calhoun to Randolph was provided by J. C. Shippy, Clerk of the Court, and the Calhoun County Tax Appraiser, respectively, Calhoun County, interviews, Morgan, Georgia, Feb. 8, 1977, and March 15, 1977, and corroborated by W. P. Wood, Clerk of the Court, Randolph County, March 18, 1977.

# THE NORTHERN NECK OF VIRGINIA: A TIDEWATER GRAIN-FARMING REGION IN THE ANTEBELLUM SOUTH

By James B. Gouger

Most Americans, in imagining Tidewater (i.e. coastal plain) Virginia in the period prior to the Civil War, would perceive a region dominated by the cultivation of tobacco, a landscape in which large tobacco plantations—each complete with a magnificent manor house, numerous slaves, and the air of an English country estate—line the principal rivers. Although Virginia *was* dominated by a tobacco-planting economy during most of the colonial period, the century preceding the Civil War saw a transformation of the agricultural economy in many parts of the Old Dominion. Tobacco became more and more a specialty crop of certain districts while farmers throughout the state were turning to commercial grain cultivation. Early agricultural censuses reveal that wheat harvests, for example, rose steadily in Virginia until, in 1859, the Old Dominion surpassed both New York and Pennsylvania to become the largest wheat-producer among the original American states.

The long history of grain cultivation in the Shenandoah Valley has been the subject of several notable studies.[1] However, grain farming east of the Blue Ridge, and especially in Tidewater, has received little attention from historically-minded scholars. Nowhere in Tidewater was the transformation from a tobacco-planting region into a grain-farming region more complete than in that group of counties between the Potomac and the Rappahannock Rivers known as the "Northern Neck" (Figure 1).

During the first half of the eighteenth century the Northern Neck was one of the principal tobacco-producing regions in America. Among the tobacco planters of the Northern Neck were many of the wealthiest and most influential families of Virginia, including the Balls, the Washingtons, the Lees, the Monroes, the Carters, the Fitzhughs, and the Fauntleroys. The remaining ancestral homes of the colonial planter aristocracy stand today in mute testimony to the fortunes which were accumulated here through the cultivation of tobacco. However, by the eve of the Civil War tobacco cultivation had all but disappeared from the Northern Neck, although it remained an important crop in adjacent parts of Virginia and Maryland (Figure 2).

Most students of the colonial period have commented on the destructive type of agriculture which was practiced in the tobacco-growing regions, noting that the resulting soil exhaustion brought land abandonment and westward migration in search of new lands.[2] That colonial planters in Virginia and Maryland commonly perceived soil

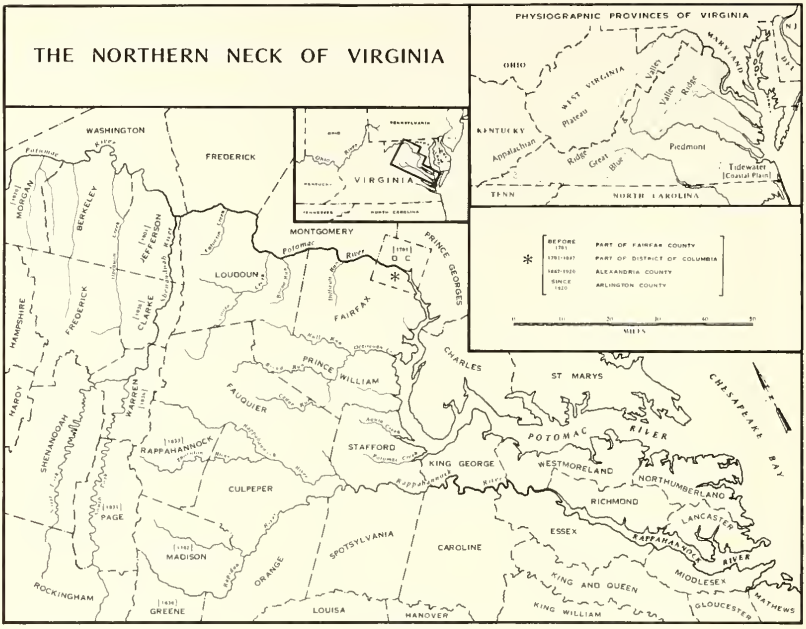



Figure 1

exhaustion to be the inevitable result of tobacco cultivation, and that they frequently abandoned land when crops began to decline has been well documented.[3] However, this explanation alone does not account for the more complete abandonment of tobacco cultivation in the Northern Neck as compared to adjacent areas. Nor can this anomaly be attributed to variations in the soil types found here. Certain soils which are "especially well liked for tobacco" in southern Maryland (and on which tobacco is still grown today south of the Rappahannock) exist in identical form in the Northern Neck, where tobacco has long-since disappeared.

Instead, two other factors were primarily responsible for the transition of the Northern Neck from a tobacco-planting region into a grain-farming region. First, circumstances brought the Tidewater tobacco planters of the Northern Neck into contact with immigrant grain farmers who were moving down the Great Valley from Pennsylvania and who, by their example, influenced the planters to a favorable disposition toward grain cultivation. Second, no part of the Northern Neck is more than eight miles from a navigable stream and all but a small portion lies within four miles of such a waterway. This accessibility to cheap water transportation gave a competitive advantage to Northern neck grain in the early years, despite lower crop yields than were possible in other, particularly interior, regions.

The Northern Neck was part of a vast territory which, in mid-

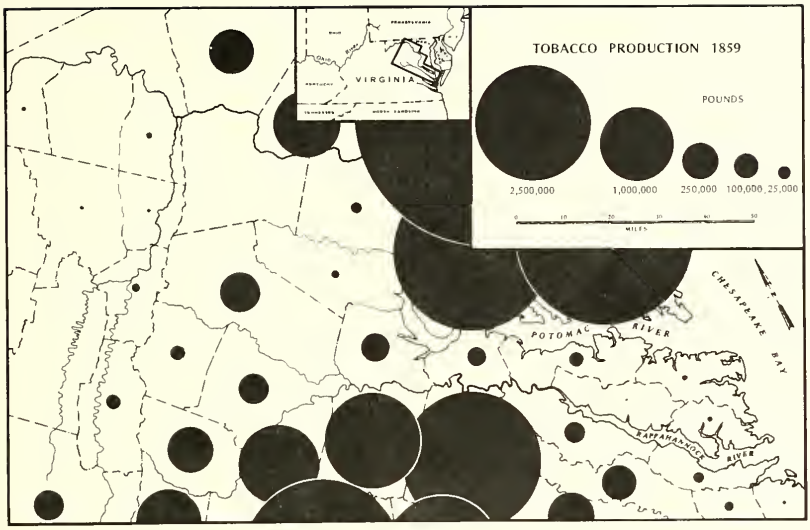



Figure 2

seventeenth century, had been granted by King Charles II to a group of his loyal supporters in the fight against Cromwell (Figure 3). In developing this territory, the Proprietors employed a system of granting lands which encouraged the accumulation by Tidewater tobacco planters of larger and more extensive landholdings than were generally to be found in the rest of Virginia or Maryland.[4] When German, Scots-Irish, Quaker, and other immigrants moved southwestward into the Shenandoah Valley after 1730 they found that much of the most desirable agricultural land within the Proprietary had already been granted to Tidewater planters. Preferring to rent good land rather than own mean land, many of the immigrants chose to become tenants of the planters. The planters found this arrangement agreeable since it produced revenue to pay the quit-rents on these speculative landholdings. Furthermore, the tenants would clear the land of forest and prepare it for the eventual use of the planter in cultivating his tobacco. The immigrant grain farmers were preferred as tenants because it was felt that they would be less likely to exhaust the fertility of the land than would Virginians with their predisposition toward tobacco cultivation.[5]

By no means were the migrants moving into the Shenandoah Valley from Pennsylvania the first to introduce grain cultivation into the Old Dominion. Wheat and corn had always been the principal food crops of colonial Virginia. Corn, particularly, was grown on virtually every plantation and provided the principal source of food for the labor force. Robert Beverley observed that "the Bread in Gentlemen's Houses, is generally made of Wheat" but the majority of the population "choose

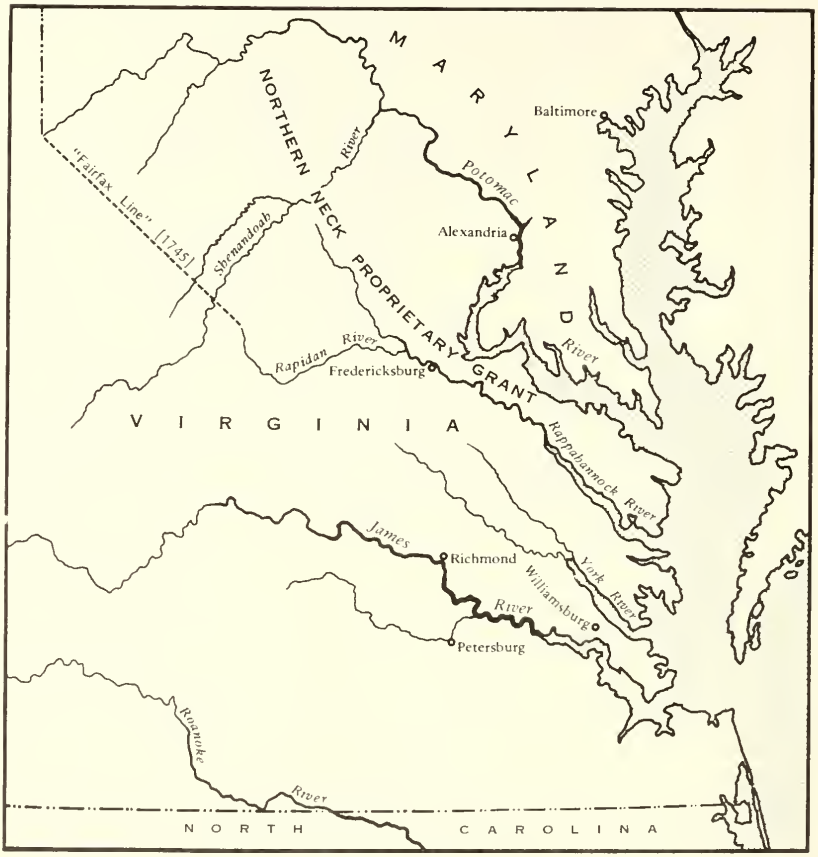



Figure 3

the Pone [cornbread]."[6] He said, in 1702, that "All sorts of English Grain thrive, and increase [in Virginia] ... And yet they don't make a Trade of any of them."[7] Because of low prices and high transportation costs "it was not possible for grain to have been cultivated in the Colony... and then sold at a profit" in England during the seventeenth century.[8] Only tobacco could bear the high cost of trans-Atlantic shipment and still return a profit to the planter at this time.

After the middle of the eighteenth century, however, Virginians began to produce wheat and corn for export whenever tobacco prices were depressed. Markets for grain were opening at this time which offered the Virginia planter an alternative to tobacco cultivation. The expansion of plantation agriculture in the southern colonies created a demand for Indian corn within that region to feed the growing slave labor force. Both wheat and corn could be sold in the northern colonies and markets for wheat were expanding in Europe.[9] England, with a

rapidly increasing population, "found herself drifting more and more toward dependence on imports."[10] By 1772, wheat production in Virginia had expanded to such a degree that Roger Atkinson, a merchant, could call it "another staple . . . which will I believe in a little time be equal, if not superior to tobacco. . . . We shall in a few years make more in Virginia than all the province of Pennsylvania put together."[11]

The halcyon era for the Virginia tobacco trade had been the quarter-century ending in 1760. That year, however, began a decade of "almost continuous depression"[12] which weighed heaviest on the Tidewater tobacco planters. It was during this decade that planters in the Northern Neck, observing the relative prosperity of their tenants, began to turn away from tobacco cultivation and to place greater emphasis on the cultivation of grain.

George Washington, who was one of the principal tobacco planters in the Northern Neck in 1760, wrote in 1765 that "It appears pretty evident to me, from the prices I have generally got for my tobacco in London, . . . [that planters] should endeavour to substitute some other article in place of tobacco, and try their success therewith."[13] Washington began to gradually reduce the acreage he planted to tobacco during this decade, while his sales of wheat steadily increased.[14] The biographer of Councillor Robert Carter of *Nomini* [Westmoreland County] found that "after 1760, he decided definitely to cultivate grain for the export trade."[15] Carter appears to have placed greatest emphasis on corn production, but he also grew considerable quantities of wheat and frequently speculated in this commodity, buying up large quantities for sale in Europe.[16] Of course, Carter was an exceptional entrepreneur; few of his neighbors in the Northern Neck would have engaged directly in the export of grains themselves. Nevertheless, the fact that Carter was able to purchase significant quantities of wheat shows that other planters were embarking upon commercial grain production.

On the eve of the Revolution the anonymous author of *American Husbandry* reported that

> . . . [as for] the planters, none of them depend on tobacco alone, and this is more and more the case since corn has yielded a high price . . . They all raise corn and provisions enough to support the family and plantation, besides exporting considerable quantities; no wheat in the world exceeds in quality that of Virginia and Maryland.[17] . . . The wheat and other corn . . . are raised principally on old tobacco plantations that are worn out for that plant without the assistance of much manure.[18]

The American Revolution was not a dramatic turning point for agriculture in the Northern Neck in the sense that it was for most social and political institutions. For agriculture the Revolution was a period of disruption which necessitated temporary adjustments in the agri-

cultural system in response to changed market demands and the interruption of trade. Once the war ended, agriculture in the Northern Neck was restored very nearly to its pre-war state and the gradual transition which had begun about 1760 continued.

The principal emphasis of agriculture during the war was on food production, stimulated by good prices and the requirements of the Continental armies.[19] During the war years the production of grains, especially wheat, was greatly expanded throughout the Northern Neck, but most notably in western Fauquier and Loudoun Counties and in the Shenandoah Valley.[20] These were, of course, the areas which had received significant infusions of immigrant farmers from Pennsylvania and which had a tradition of general farming based largely on grain cultivation.

At the beginning of the war trade between Britain and the colonies was suspended and trade with other areas was greatly restricted by the British navy. The tobacco trade during the war was, therefore, necessarily limited. Exports from Virginia fell to about twenty-five per cent of their pre-war levels,[21] and Harrower reported that along the Rappahannock the planting of tobacco was "intirely stopt."[22] Robert Carter, whose plantations were scattered throughout the Northern Neck, produced so little tobacco during the war that in some years he had to borrow tobacco from his neighbors to pay taxes which were collected in that commodity. After borrowing 65,000 pounds from Colonel Richard Lee and others, he explained "my intention was to make grain at my Plantations. I was without my Tobacco when said Tax was collecting."[23]

There was a brief resumption of tobacco cultivation in the Northern Neck in the years immediately following the Revolution but, increasingly, the Tidewater planters were finding the crop to be less profitable than grains. Markets were more restricted than they had been before the war:

> Before the Revolution all Europe depended on us for supplies of the article; but being cut off by the war, Europeans turned their attention to growing tobacco for themselves, and have continued to cultivate it all over the continent, while they have checked its consumption by . . . onerous taxation.[24]

Furthermore, competition was increasing as newly-settled transmontane regions began the production of tobacco. The problem facing the Tidewater tobacco planter had been identified by the author of *American Husbandry* even before the war began:

> There is no plant in the world that requires richer land, or more manure than tobacco; it will grow on poorer fields, but not to yield crops that are sufficiently profitable to pay the expences of negroes, &. . . . Many of them [planters] have very handsome houses, gardens, and improvements about them, which fixes them to one spot; but others, when they have exhausted their grounds, will sell them to new settlers for corn-

fields, and move backwards with their negroes, cattle, and tools, to take up fresh land for tobacco.[25]

To continue the cultivation of tobacco meant—as it had for more than a century—taking up fresh lands. Advertisements appearing in the *Virginia Herald* testify to the fact that a small but significant number of planters chose this option. Representative was an individual in the Fredericksburg area who, in 1792, offered "To be Sold, *or Exchanged for Kentucky Lands,* the Land where I now live, containing about 750 acres."[26] Sales were especially common in northern Virginia, particularly in Fairfax County, where the purchasers were usually "northerners" intent upon the cultivation of grains.[27]

By 1790, wheat had become the staple on the heavy soils along the major rivers where the large estates of the Northern Neck predominated, its cultivation encouraged by success in the use of ground oyster shells for fertilizer. On the sandier "upland" soils of the Northern Neck, however, wheat yields were less satisfactory and farmers in this area were beginning to turn from wheat to corn. Isaac Weld, who traversed the Northern Neck in 1796, was struck by the contrasts to be found there:

> Amongst the inhabitants here . . . there is a disparity unknown elsewhere in America, excepting in the large towns. Instead of the lands being equally divided, immense estates are held by a few individuals, who derive large incomes from them, whilst the generality of the people are but in a state of mediocrity.[28]

Weld was impressed with the manor houses of the wealthy planters along the rivers, particularly in Richmond and Westmoreland counties. As he crossed overland from the Potomac to the Rappahannock, however, he observed that

> Some parts of it [the Northern Neck] are well cultivated, and afford good crops; but these are so intermixed with extensive tracts of waste land, worn out by the culture of tobacco, and which are almost destitute of verdure, that on the whole the country has the appearance of barrenness.[29]

For decades many—if not most—of the Tidewater planters had been aware of the shortcomings of their great dependence on tobacco: soil erosion, low prices, and declining yields as their lands were "worn out" by a rentless cultivation of the "pernicious weed." In the years after 1760, and again with the American Revolution, grains—particularly wheat—offered a profitable alternative to tobacco cultivation and grain crops were emphasized throughout the Northern Neck and adjacent areas. The replacement of tobacco by widespread cultivation of wheat and corn, however, did not eliminate the planters' long-range problems of soil erosion and declining soil fertility. George Washington, in a 1787 letter to Arthur Young, described the usual approach to grain cultivation in the Northern Neck:

> The general custom has been, first to raise a crop of Indian corn, (maize,) which, according to the mode of cultivation, is a good preparation for wheat; then a crop of wheat; after which the ground is respited, (except from weeds, and every trash that can contribute to its foulness,) for about eighteen months; and so on, alternately, without any dressing, till the land is exhausted; when it is turned out, without being sown with grass-seeds, or roots, or any method taken to restore it, and another piece is ruined in the same manner.[30]

Furthermore, grains—like tobacco—proved to be subject to great fluctuations in price as overseas markets were opened and closed, and additional problems arose with the introduction of the Hessian fly.

The planter elite—who were tied to eastern Virginia by their manor houses and great estates and who were, therefore, less inclined to join the increasing stream of out-migrants bound for Kentucky or beyond—were among the first to realize that relentless cultivation of any crop was a practice which could not be sustained. Washington was but one of a number of wealthy planters who resolved "to pursue a course of husbandry which is altogether different and new to the gazing multitude, ever averse to novelty in matters of this sort, and much attached to their old customs."[31] His correspondence indicates that he devoted considerable attention to experiments with various crop rotations, the development of improved techniques for tilling, and a search for a better type of plow.[32] Agricultural innovations and reforms spread very slowly in the old tobacco regions. Where they were adopted, however, it was generally by the planter elite, who proved receptive to new farming techniques once their utility had been demonstrated—much more so, at least, than their poorer neighbors who frequently lacked either the information or the capital necessary to adapt.

There was widespread admiration among the Northern Neck planters for the farming ability of the Quakers and Germans from Pennsylvania who had settled much of the Shenandoah Valley.[33] The diversified agriculture which these farms introduced into the Shenandoah Valley had already been carried east of the Blue Ridge into the western parts of Loudoun and Fauquier Counties before the Revolution. At least by the time of that conflict these farmers were beginning to have an influence on the Tidewater planters who were their landlords or—as tobacco cultivation was extended westward—neighbors. By 1790, the diversified agriculture which characterized the Valley and western Piedmont had been adopted (or, perhaps more correctly, was being attempted) by farmers scattered throughout northern Virginia.

A report prepared for President Washington in 1790 indicated that, of the counties between the Potomac and the Rappahannock, only parts of Prince William and Fauquier were "still attached to tobacco."[34] The

balance of the area above Tidewater was given over to what a German visitor called "the profitable culture of wheat,"[35] together with a variety of other grain crops and the increasing development of meadows.[36] At this time Fredericksburg, on the Rappahannock, and Alexandria, on the Potomac, were emerging as the principal market towns for the Northern Neck above Tidewater, based to no small degree on the growing trade in wheat and flour. By 1795, so little tobacco was being produced in northern Virginia it was declared that "the warehouses for the reception and inspection of tobacco in the town of Alexandria are no longer necessary for that purpose" and the inspection there was discontinued.[37]

The three decades which began with the outbreak of the French Revolution in 1789 and lasted until the depression which engulfed the United States in the wake of the Panic of 1819 was a period of relative prosperity for the farmers of the Northern Neck. During this period warfare in Europe served to raise wheat prices for several years and, also, markets opened in Europe and the West Indies which had previously been closed to American grains.[38] In response to the generally good prices for wheat, cultivation of that grain was increased along the Potomac and the Rappahannock. At this time Northern Neck farmers enjoyed a particular advantage in marketing their wheat, since Baltimore—then emerging as the principal flour milling and exporting center of the middle states—was easily accessible by water.

A similar advantage of easy water shipment enabled Northern Neck farmers to produce corn for both the northeastern states and for the plantation regions of the lower South—markets denied to grain farming districts in the interior because of the difficulty of getting the crop to market.[39]

> For the southern ports within the United States . . . the *white* corn is purchased almost exclusively; it is intended for blacks, employed in the more profitable cultivation of rice and cotton; and blacks are known, it is believed, every where, to entertain a strong disinclination, not to say antipathy, to *yellow corn;* . . . On the other hand, for the *Eastern* States, where "the folks" calculate very nicely the length, breadth and the weight of things; where they have no slaves, and where the corn is fed to their horses and other live stock, none but yellow corn is demanded, that being considered more solid and nutritious than white.[40]

The distinct transportation advantage which the Northern Neck farmers enjoyed seems to have offset the lower yields of wheat and corn—compared to Loudoun County or the Shenandoah Valley—which they were obtaining from their lands. With good grain prices even those farmers who had not moved to adopt agricultural reforms were able to prosper. However, the Northern Neck lost its unique transportation

advantage when, during the era of canal-building which reached its peak in the United States after 1825, inland grain-producing regions began to gain easy and relatively cheap access to the principal markets—a process which was completed during the era of railroad-building which, in turn, followed.

When depression swept the United States in 1819, wheat prices fell sharply and remained generally low for the next three decades.[41] During this same period the Hessian fly appears to have become especially troublesome.[42] For Northern Neck farmers a low point was reached when, according to Edmund Ruffin, "the season of 1825, so fatal throughout the eastern half of Virginia, did not leave enough of good wheat on many farms to again sow the fields."[43]

In despair, many small farmers moved out of the Northern Neck to other areas, including Kentucky, Ohio, and Alabama.

> The man who had a small farm and a large family, whether with or without slaves, who had not been industrious and economical, was the first to feel the pressure, and off he went. His more frugal neighbor, or neighbors, purchased his land, which though poor, afforded a larger field for cultivation, and at least for a time, helped to sustain him who purchased it. In this way things progressed from bad to worse.[44]

The large estates, already the dominant feature of the Tidewater landscape in the Northern Neck, became even larger as the lands of the emigrant small farmers were bought up.

Of the farmers who remained, many turned to non-agricultural pursuits. A Northumberland County farmer wrote, in 1834, that "Many are engaged in the wood business,"[45] supplying steamboats as well as shipping firewood to urban centers as far away as Norfolk, Baltimore, and Washington. "A stranger," this man said, "if passing through some parts of our county, would say it was abandoned and given up, or that it had been visited by either 'war, pestilence or famine.'"[46] From Fairfax, a farmer wrote "looking at the county as it was thirty six years ago, and at the present time, I must say that hope and hope only, keeps two thirds of the population of this county in it."[47] A farmer in King George County, with tongue-in-cheek, observed:

> Our general course of operations has been, to *cultivate* our lands in corn one year, and *rest them* in wheat the next; and so on, until they are prepared for a good crop of *old field pines*—the best crop by the way, since the introduction of steam boats, of the whole.[48]

The plight of farmers in the Tidewater counties of the Northern neck is illustrated by an 1830 letter from a man whose brother was already enroute to Ohio:

> For my own part I shall have to move from this country as we

really do not make both ends meet. There is a little balance against us every year. The fruits of the ground are what we depend on for a living and for some years the depression with the farmers here has been very great. And our land is not rich so that we have to cultivate a great deal of ground to make a little corn. I put in my corn house last year a hundred barrels of corn which is 500 bushels. Out of that I shall scarcely sell 40 bbls. It will take the rest to feed my family and stock and at the present price of corn, which is only twenty-nine cents per bushel, will only produce me forty-eight dollars; 100 weight of cotton, nine-fifty and about 30 bushels of wheat at eighty cents.... I think on many accounts that we ought to remove from this place. It is certainly impossible to acquire property in this country via farming. And property is lessening in value every day. All the money is going out and none coming in. Were it not for the Wood business times would be much worse. Our land could not afford wood to cut many years longer at 50 cords per year [which] is what I generally cut.[49]

While it is certain that the misfortunes of these times weighed more heavily on the small farmers of the Northern Neck, the barons of the Potomac and the Rappahannock were not immune to hardship. Such was the case for the Lees, who lost their ancestral home, Stratford Hall, in 1830.[50] Still others, in order to meet their expenses, found it necessary to sell part of their slave labor force, following the example of

> a profane old gentleman, who was in the habit of selling a negro every year or two, to pay off his scores for corn and meat, who had a large number of slaves, swearing that his negroes should never eat him, but one the other.[51]

The sale of slaves from the old tobacco regions to the new cotton-producing states became an important source of revenue for many Virginia farmers. In the process, the huge slave population of the Northern Neck—a relict of the tobacco-planting days—was reduced to a level more appropriate for grain cultivation (a step which agricultural reformer John Taylor had advocated a generation earlier). For example, Olmsted reported that the percentage of slaves in the total population of Fairfax County was reduced by half between 1836 and 1856, and this was possible despite the fact that the county was then being transformed from "a wilderness of pines" to "smiling fields of grain and grass."[52]

Primarily responsible for this transformation of Fairfax County—indeed of the entire eastern half of the Northern Neck—was a renewed emphasis on the use of fertilizers, particularly Peruvian guano. During the last two decades preceding the Civil War farmers throughout the upper South embraced the use of guano with enthusiasm which was unprecedented for an agricultural innovation.

Glowing reports of the "most beneficial effect" of guano on a variety of crops in England began to appear in the American agricultural press after 1840.[53] In 1844, the first shipload to be imported into the United States reached Baltimore.

> It was at first used with caution and in very limited quantities, from the twofold reason of, first, its high cost, and secondly, the doubts with practical farmers of the possibility of so small a quantity of "dust" exerting such wonderful power upon vegetation as it was represented to do.[54]

The results of these early trials aroused considerable interest among farmers as the experimenters began to report dramatic increases in their crops. Wheat was particularly benefited by guano, the yields frequently being doubled.[55]

> Upon old worn-out land, long considered worthless, the effect has in many instances been magical, frequently producing from twenty to twenty-five bushels of wheat from a single application of 250 lbs. per acre, where not a return for the seed could have been expected before.[56]

In view of these results it is not surprising that guano gained quick acceptance, even among farmers for whom fertilization had not been a common practice. Despite rapidly increasing shipments (Baltimore, the principal port for importation, received 2,700 tons in 1849, 6,800 tons in 1850, and 25,000 tons in 1851), and prices held artificially high by the Peruvian government, "only on rare occasions did the supply equal the demand."[57]

The introduction of Peruvian guano was of particular importance to the Northern Neck, for it proved to be most beneficial on soils where other fertilizers had had little effect.[58]

> No lands in the country are so well adapted to the use of guano as those of the forest [upland] Northern Neck. While its application on the river lands of this Neck has yielded but a small profit [these "necklands" were already producing good wheat, especially when fertilized with marl], and its use on the south side of the Rappahannock been attended with scarce any profit at all, throughout the whole forest of which we are speaking, it has quadrupled the crop, and yielded an average profit of at least a hundred per cent. Before the introduction of guano wheat was little cultivated in this region. Now, we believe, taking into the estimate the cheapness of land, the cheapness and facility of cultivation, and the cheapness of freights, that wheat is a far more profitable crop in the forest of the Northern Neck, than in the valley of Virginia, which latter, has always been considered one of the best wheat-growing sections of the Union.[59]

Additional evidence of the role of guano in transforming the Northern Neck from a state of mediocrity into a major grain-producing region can be seen in an address made, in 1853, to the Rappahannock Agricultural and Mechanical Society. The speaker, Willoughby Newton, asserted that

> in no part of the world has [agricultural] improvement been more rapid, or its results more profitable, than in the favored region which we inhabit. Wheat, which was formerly considered so precarious a crop that its culture was almost abandoned, has now, by improved husbandry, the use of lime, marl, clover, plaster, and the best of all fertilizers, *guano,* become our greatest staple, in the production of which we can defy the competition of the world. So rapid has been the improvement, and so great the increased profits of agriculture, that it may be safely affirmed, that in the short space of seven years, the value of the landed property of Eastern Virginia has been fully doubled; whilst of many neighborhoods, it has been quadrupled, and some particular farms increased more than ten fold. I can see no reasonable limit to this improvement, if we continue to pursue the same course of steady, enlightened and hopeful industry, that has now become almost universal. The only misgiving that ever crosses my mind, is the fear that the supply of our greatest fertilizer [Peruvian guano] may become insufficient, or be entirely cut off.[60]

The continuing improvement in the lot of the Tidewater farmer which Newton forecast was to be swiftly realized. By the early 1850s it was reported that "the demand for wheat, for exportation, is now very great, and increasing, and the highest prices are paid."[61] Furthermore, even as Newton was delivering his address, the clouds of war were, for the first time since Waterloo, gathering over Europe. Noting the dependence of England on the Mediterranean and Black Sea regions for grain, and anticipating the Crimean War, J. D. B. DeBow concluded

> The consequence of a Turko-Russian war would be, that all that immense quantity of wheat which has hitherto flown into the English markets, would immediately cease to flow in that direction. It would all be absorbed at home. The produce of the Baltic, too, would be stopped; and then England's only reliance for wheat and other products would be on America.... Brighter prospects were never held out to the agricultural world of America than at present.[62]

Wheat prices did rise with the outbreak of the Crimean War and tended to remain high through the remaining years before the American Civil War. This, together with the expanded wheat production which accompanied the introduction of guano, ushered in a period of prosperity

in the Northern Neck which exceeded even that of the halcyon days of the colonial tobacco trade. Wheat production in the five Tidewater counties of the Northern Neck almost doubled between 1850 and 1860 (in Lancaster County the increase was 231%) (Figure 4).

As wheat production increased in the Northern Neck, this "rich and productive region" more than ever became "tributary to Baltimore," the principal flour-milling and grain exporting center of the upper South.[63]

> The fine landings on this [Rappahannock] river [and on the Potomac as well] now enable the farmers to dispense with neighborhood stores and villages altogether. The steamboats for Baltimore and Fredericksburg pass them four times a week, and it is more convenient to procure merchandise from those towns, than from stores a few miles off. Some of them have granaries on the river bank, with short troughs, or spouts, running into the hold of the vessel, in the river below.[64]

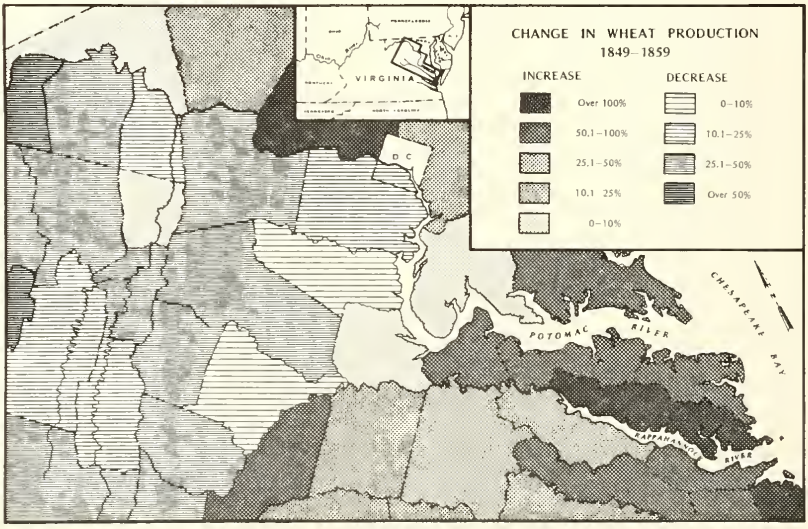



Figure 4

So convenient was the steamboat service that many Northern Neck residents found it easier to travel to Washington or Baltimore "than to cross our ferries, with a cold, head wind."[65] The steamboats were not without their discomforts, however. One traveler, passing from Baltimore to Fredericksburg in 1854, remarked

> Your nose, I will grant, is odorated pretty freely, there being now a guano epidemic among the planters of the Old Dominion. No vessel, I hear, leaves Baltimore for "long shore" at this season, which is not freighted with it. The "Virginia" had

hundreds of bags amidships, the trip I made in her; indeed, it seemed to me as if the Chincha Islands had all been tumbled upon her deck. I shall never forget the bouquet; it was inhaled by me with every thing I ate; indeed, after attaining my journey's end, it was a long time before I forgot the rich Islands of Peru.[66]

It is unlikely, however, that the farmers of the Northern Neck objected to sharing passage with the guano, despite its pungent aroma. This was the substance which had made them "... already the richest agricultural population in America, averaging, we should think, a property to each man, whose lands adjoin the river, of near a hundred thousand dollars."[67]

On the eve of the Civil War the residents of the Northern Neck were as devoted to wheat as they had been before 1760 to tobacco, while the old staple was all but forgotten (Figure 5). During the century from 1760

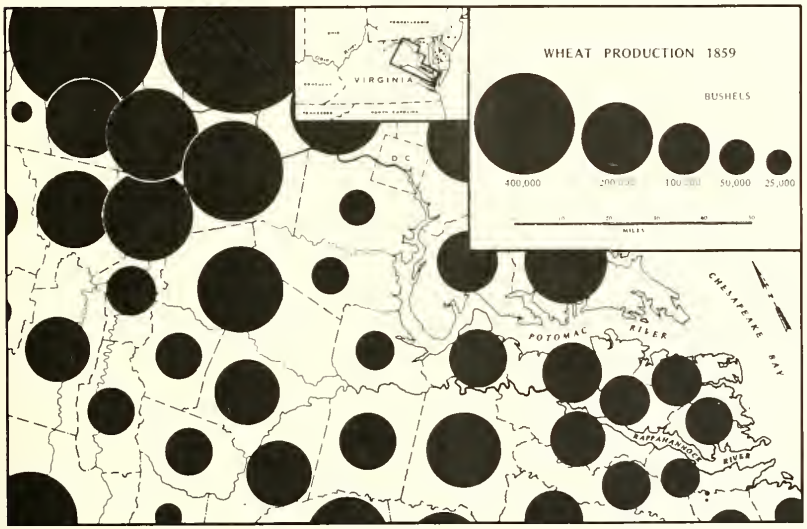



Figure 5

to 1860 the planters of the Northern Neck, having far-ranging interests and contacts, had reacted swiftly to changing economic circumstances and, whenever possible, capitalized on their transportation advantage. Influenced by the prosperity of tenants on their interior landholdings, they had led the shift from tobacco planting to cash grain farming in Tidewater. They were the leading innovators during the period of the agricultural revival and contributed to out-migration during the depression which followed by buying out neighboring farmers and selling off slaves. With the introduction of a fertilizer which again made wheat farming profitable in Tidewater, they had the information and the capital to be among the first adopters.

As a region characterized by the production of cash grains on Tidewater plantations with slave labor, the Northern Neck appears to have been unique. The difference between the Northern Neck and surrounding regions, however, was generally one of degree rather than kind. The agricultural changes which took place in the Northern Neck between 1760 and 1860 either anticipated or reflected changes which were taking place in neighboring regions, although the wealthy planters who dominated the Northern Neck carried each of these changes to an extreme.

## FOOTNOTES

[1] For example, Robert D. Mitchell, "The Commercial Nature of Frontier Settlement in the Shenandoah Valley of Virginia," *Proceedings of the Association of American Geographers*, Vol. I (1969), 109-113; and "The Shenandoah Valley Frontier," *Annals*, Association of American Geographers, Vol. 62, No. 3 (September, 1972), pp. 461-486.

[2] e.g., Clement Eaton, *A History of the Old South* (New York: Macmillan, 1949), pp. 21, 27.

[3] Avery Odell Craven, *Soil Exhaustion as a Factor in the Agricultural History of Virginia and Maryland, 1606-1860* (Urbana: University of Illinois, 1925).

[4] Willard F. Bliss, "The Rise of Tenancy in Virginia," *The Virginia Magazine of History and Biography*, Vol. 58, No. 4 (October, 1950), pp. 428-429.

[5] Fairfax Harrison, *Landmarks of Old Prince William: A Study of Origins in Northern Virginia in Two Volumes* (Richmond: The Old Dominion Press, 1924), p. 401; Bliss, "The Rise of Tenancy," pp. 427-441.

[6] Robert Beverley, *The History and Present State of Virginia* [1705], (reprinted, Charlottesville: The University Press of Virginia, 1968), p. 292.

[7] *Ibid.*, p. 316.

[8] Philip Alexander Bruce, *Economic History of Virginia in the Seventeenth Century* (2 volumes, New York: Peter Smith, 1935), p. 257.

[9] For a discussion of trade during this period see Arthur Pierce Middleton, *Tobacco Coast, A Maritime History of Chesapeake Bay in the Colonial Era* (Newport News: The Mariners' Museum, 1953).

[10] Lewis Cecil Gray, *History of Agriculture in the Southern United States To 1860* (2 volumes, New York: Peter Smith, 1941), p. 165.

[11] "Letters of Roger Atkinson," *Virginia Magazine of History and Biography*, Vol. XV (April, 1908), p. 352.

[12] L. C. Gray, "The Market Surplus Problem of Colonial Tobacco," *William and Mary College Quarterly Historical Magazine*, Vol. VII, No. 4 (October, 1927), pp. 235-236.

[13] *The Writings of George Washington; Being His Correspondence, Addresses, Messages, and Other Papers, Official and Private, Selected and Published from the Original Manuscripts...* [edited by Jared Sparks], (12 Volumes, Boston: American Stationers' Company, 1837), Vol. 12, pp. 262-263.

[14] *Ibid.*, pp. 257-263; *Diaries of George Washington, 1748-1799* [edited by John C. Fitzpatrick], (4 volumes, Boston: Houghton Mifflin Co., 1925), Vol. I, pp. 165-345 *passim;* Gray, *History of Agriculture*, p. 606.

[15] Louis Morton, *Robert Carter of Nomini Hall, A Virginia Tobacco Planter of the Eighteenth Century* (Williamsburg: Colonial Williamsburg, Inc., 1941), p. 144.

[16] *Ibid.*, pp. 133-150, *passim; Journal & Letters of Philip Vickers Fithian, 1773-1774: A Plantation Tutor of the Old Dominion,* [edited by Hunter Dickinson Farish], (Williamsburg: Colonial Williamsburg, Inc., 1945), p. 249.

[17] *American Husbandry, Containing an Account of the Soil, Climate, Production and Agriculture of the British Colonies in North America and the West Indies . . . by an American,* [2 volumes, London: J. Bew, 1775; reprint edited by Harry J. Carman] (New York: Columbia University Press, 1939), p. 163.

[18] *Ibid.*, p. 187.

[19] Gray, *History of Agriculture,* p. 585.

[20] Robert D. Mitchell, "The Shenandoah Valley Frontier," p. 480; Gray, *History of Agriculture,* pp. 581-583, *passim.*

[21] R. A. Brock, "A Succinct Account of Tobacco in Virginia," *Report on the Productions of Agriculture as Returned at the Tenth Census,* (Washington: Government Printing Office, 1883), pp. 223-225.

[22] John Harrower, *The Journal of John Harrower: An Indentured Servant in the Colony of Virginia, 1773-1776* [edited by Edward Miles Riley], (Williamsburg: Colonial Williamsburg, Inc., 1940), p. 111.

[23] Morton, *Robert Carter of Nomini,* pp. 133-134.

[24] Brock, Succinct Account of Tobacco," p. 225.

[25] *American Husbandry,* pp. 164-165.

[26] Advertisement by Robert Smith in the *Virginia Herald and Fredericksburg Advertiser,* September 6, 1792.

[27] Gray, *History of Agriculture,* p. 608.

[28] Isaac Weld, *Travels Through the States of North America, and the Provinces of Upper and Lower Canada, During the Years 1795, 1796, and 1797* (London: John Stockdale, 1800), p. 113.

[29] *Ibid.*, p. 116.

[30] George Washington to Arthur Young, November 1, 1787. Letter reprinted in *The Farmers' Register,* Vol. V, No. 6 (October 1, 1837), p. 323.

[31] George Washington to Arthur Young, August 6, 1786. *Ibid.*, p. 322.

[32] See, for example, "Letters From His Excellency George Washington to Arthur Young, Esq., F.R.S., and Sir John sinclair, Bart. M.P., Containing an Account of his Husbandry . . . ," *The Farmers' Register,* Vol. V, No. 6 (October 1, 1837), pp. 321-358, and Vol. V, No. 7 (November 1, 1837), pp. 385-389; and *Diaries of George Washington,* Vol. I, pp. 140-142, 164-165, 374, *passim.*

[33] See, for example, "Letters From His Excellency George Washington to Arthur Young," *Ibid.;* and "Dr. David Stuart's Report to President Washington on Agricultural Conditions in Northern Virginia," [edited by Gertrude R. B. Richards], *The Virginia Magazine of History and Biography,* Vol. 61, No. 3 (July, 1953), pp. 283-292.

[34] "Dr. David Stuart's Report to President Washington on Agricultural Conditions in Northern Virgina," *Ibid.*, p. 288.

[35] Johann David Schoepf, *Travels in the Confederation [1783-1784],* [translated and edited by Alfred J. Morrison], (Philadelphia: William J. Campbell, 1911), p. 44.

[36] "Dr. David Stuart's Report to President Washington," pp. 286-290.

[37] Fairfax Harrison, *Landmarks of Old Prince William,* p. 416.

[38] Gray, *History of Agriculture,* pp. 817, 1039.

[39] *Ibid.,* p. 812.

[40] *American Farmer,* Vol. I (Friday, April 30, 1819), pp. 39-40.

[41] Gray, *History of Agriculture,* pp. 817, 1039.

[42] *American Farmer,* Vol. I, pp. 301-302.

[43] Edmund Ruffin, "Sketch of the Progress of Agriculture in Virginia, and the Causes of its Decline, and Present Depression," *Farmers' Register,* Vol. III, No. 12 (April, 1836), p. 759.

[44] *Farmers' Register,* Vol. II, No. 10 (March, 1835), p. 612.

[45] *Farmers' Register,* Vol. I, No. 10 (March, 1834), p. 630.

[46] *Ibid.*

[47] *Farmers' Register,* Vol. I, No. 9 (February, 1834), p. 553.

[48] *Farmers' Register,* Vol. I, No. 3 (August, 1833), p. 186.

[49] Frederick Wood ["Kennersley," Northumberland County] to George Wood [Washington, D.C.], April 10, 1830. Letter in Kenner MSS, Northumberland County Historical Society, Heathsville, Virginia.

[50] *Westmoreland County Deeds & Wills* (MSS), Book 26, pp. 286-293.

[51] *Farmers' Register,* Vol. II, No. 10 (March, 1835), p. 612.

[52] Frederick Law Olmsted, *A Journey in the Seaboard Slave States, with Remarks on their Economy* [1856], (New York: Negro Universities Press, 1968), p. 213; also see pp. 55-57, 273-274, 279.

[53] See, for example, *Farmers' Register,* Vol. IX, No. 9 (September 30, 1841), pp. 556-557.

[54] *DeBow's Review,* Vol. XIII, No. 6 (December, 1852), p. 627.

[55] *DeBow's Review,* Vol. IX, No. 2 (August, 1850), p. 203; Vol. XIII, No. 6 (December, 1852), p. 628; *American Farmer,* Vol. IX, No. 4 (October, 1853), p. 110; Vol. IX, No. 11 (May, 1854), p. 347.

[56] *DeBow's Review,* Vol. XIII, No. 6 (December, 1852), p. 628.

[57] Craven, *Soil Exhaustion,* p. 149; also, *DeBow's Review,* Vol. XIV, No. 5 (May, 1853), p. 472; Vol. XVI, No. 5 (May, 1854), pp. 495-461.

[58] Craven, *Soil Exhaustion,* p. 148; *DeBow's Review,* Vol. XIII, No. 6 (December, 1852), p. 629.

[59] George Fitzhugh, "The Northern Neck of Virginia," *DeBow's Review,* Vol. XXVII, No. 3 (September, 1859), p. 282.

[60] Willoughby Newton, address before the Rappahannock Agricultural and Mechanical Society, November 10, 1853, in *American Farmer,* Vol. IX (New Series), No. 11 (May, 1854), p. 347.

[61] *DeBow's Review,* Vol. XV, No. 3 (September, 1853), p. 308.

[62] *Ibid.,* p. 309.

[63] George Fitzhugh, "The Valleys of Virginia—The Rappahannock," *DeBow's Review,* Vol. XXVI, No. 3 (March, 1859), p. 269.

[64] *Ibid.,* p. 276.

[65] *Ibid.,* p. 279.

[66] *The Fredericksburg News,* Vol. VIII, No. 55 (January 15, 1855).

[67] Fitzhugh, "The Valleys of Virginia," p. 270.

T18

WEST GEORGIA COLLEGE

STUDIES IN THE SOCIAL SCIENCES

Volume XVII June, 1978

# DEPENDENCY UNBENDS: CASE STUDIES IN INTER-AMERICAN RELATIONS

RECEIVED
JUL 31 1978
PERIODICALS DEPARTMENT
LIBRARY
CARROLLTON, GEORGIA

Published By
WEST GEORGIA COLLEGE
A Division of the University System of Georgia
CARROLLTON, GEORGIA

STUDIES IN THE SOCIAL SCIENCES

Volume XVII June, 1978

# DEPENDENCY UNBENDS: CASE STUDIES IN INTER-AMERICAN RELATIONS

## CONTENTS

| | | Page |
|---|---|---|
| Contributors | | iii |
| Foreword | *John C. Upchurch* | v |
| Preface | *Robert H. Claxton* | vi |
| A Shared Prosperity: W.R. Grace & Company and Modern Peru, 1852-1952 | *Lawrence A. Clayton* | 2 |
| Our Man in Honduras: Washington S. Valentine | *Kenneth V. Finney* | 13 |
| Diplomatic Dullard: The Career of Thomas Sumter, Jr. and Diplomatic Relations of the United States with the Portuguese Court in Brazil, 1809-1821 | *Phil Brian Johnson* | 21 |
| The Personnel Approach to United States Relations with Chile, 1823-1850 | *T. Ray Shurbutt* | 37 |
| The Platt Amendment and Dysfunctional Politics in Cuba: The Electoral Crises of 1916-1917 | *Louis A. Perez, Jr.* | 49 |
| United States Involvement in Panamanian Politics during Taft's Administration | *Frank Gerome* | 61 |
| John Wesley Butler and the Mexican Revolution, 1910-1911 | *Richard Millett* | 73 |
| Carleton Beals on the Ambiguities of Revolutionary Change in Mexico and Peru | *John A. Britton* | 89 |
| Mexican Oil Diplomacy and the Legacy of Teapot Dome | *James J. Horn* | 99 |

# TITLES IN PRINT

Vol. II, 1963, *Georgia in Transition.*

Vol. III, 1964, *The New Europe.*

Vol. IV, 1965, *The Changing Role of Government.*

Vol. V, 1966, *Issues in the Cold War.*

Vol. VII, 1968, *Social Scientists Speak on Community Development.*

Vol. VIII, 1969, *Some Aspects of Black Culture.*

Vol. XI, 1972, *Georgia Diplomats and Nineteenth Century Trade Expansion.*

Vol. XII, 1973, *Geographic Perspectives on Southern Development.*

Vol. XIII, 1974, *American Diplomatic History: Issues and Methods.*

Price, each title, $2.00

Vol. XIV, 1975, *Political Morality, Responsiveness, and Reform in America.*

Vol. XV, 1976, *The American Revolution: The Home Front.*

Vol. XVI, 1977, *Essays on the Human Geography of the Southeastern United States.*

Price, each title, $3.00

Copyright © 1978, West Georgia College

Printed in U.S.A.

Thomasson Printing Co., Carrollton, Georgia 30117

Price, $3.00

*West Georgia College is an Affirmative Action/Equal Opportunity Employer*

# CONTRIBUTORS

CLAYTON, LAWRENCE A., is Associate Professor at the University of Alabama in Tuscaloosa. He received his Ph.D. from Tulane University in 1972 and has published articles in the *Hispanic American Historical Review, Journal of Latin American Studies, The Americas, Latin American Research Review, Revista del Archivo Histórico del Guayas,* and others. His *Los astilleros de Guayaquil colonial: historia de una industria* will be published in Guayaquil in 1978.

FINNEY, KENNETH V., who received his Ph.D. from Tulane, is presently Assistant Professor at North Carolina Wesleyan College at Rocky Mount. He was granted a Shell Foundation Fellowship and is a Danforth Associate. His articles have appeared in the *Revista del Archivo y Biblioteca Nacional* (Honduras) and in R.L. Watson, Ed., *Urbanization and Agriculture: A Problem in National Modernization* (1976).

JOHNSON, PHIL BRIAN, Associate Professor at San Francisco State University, also received a doctorate from Tulane. He is the author of several works on the life of Rui Barbosa. His articles have appeared in the *Journal of Inter-American Studies and World Affairs, The Americas,* and the *Revista do Instituto Histórico e Geográfico Brasileiro.* Dr. Johnson serves on the editorial boards of the *Proceedings of the Pacific Coast Council on Latin American Studies* and *The New Scholar.* In addition to a Fulbright-Hays Fellowship for research in Brazil, he has received grants from the Organization of American States and the Department of Health, Education, and Welfare.

SHURBUTT, THOMAS RAY, received his A.B. from West Georgia College in 1965 and his Ph.D. from the University of Georgia in 1971. From 1967-1972, he taught at Albany Junior College. Since 1972, he has been Coordinator of Latin American Studies at Georgia Southern College. His major research area is mid-nineteenth century Chile.

PEREZ, LOUIS A., is Associate Professor at the University of South Florida in Tampa, having received his doctorate in 1970 from the University of New Mexico. The recipient of a Ford Foundation Fellowship, Dr. Pérez is the author of over two dozen articles which have appeared in the *Hispanic American Historical Review, Inter-American Economic Affairs, The Americas, Science and Society, Journal of Latin American Studies,* and the *South Eastern Latin Americanist.* His four books include *Army Politics in Cuba, 1898-1958* (1976). His current research focuses upon Cuba during the era of the Platt Amendment.

GEROME, FRANK A., received his doctorate from Kent State University and is presently Associate Professor at James Madison University in Harrisonburg, Virginia. His recent article related to Taft's policy toward Latin America was published in the SECOLAS *Annals* in March, 1977.

MILLETT, RICHARD, received his A.B. from Harvard and Ph.D. from New Mexico. He is currently Professor of History at Southern Illinois University at Edwardsville and Chairman of the Committee on Central American-Caribbean Studies of the Conference on Latin American History. He is the author of *Guardians of the Dynasty* and some fifteen articles. With Marvin Will, he edited *The Restless Caribbean* which will be published late in 1978.

BRITTON, JOHN A., is Associate Professor at Francis Marion College. He holds the A.B. from the University of North Carolina at Chapel Hill and the Ph.D. from Tulane. His publications include *Educación y radicalismo en México, 1931-1940* (1976) and articles in *Historia Mexicana, Journal of Latin American Studies* and *The Americas.*

HORN, JAMES J., is Associate Professor at State University College of New York at Brockport and Director of the SUNY Overseas Academic Program in Cuernavaca, Mexico. A former president of the New York State Latin Americanists, he has published several articles on United States-Latin American relations. He is currently writing about health and socio-economic development in Latin America.

# FOREWORD

This volume continues the precedent of utilizing the services of a volume editor working under the loose supervision of a general editor, a policy begun with the 1973 issue of *Studies in the Social Sciences.* Responsibility for selecting the theme of the present volume, the nine papers herein included, and initial editorial refinement was that of the volume editor. The role of the general editor was limited to broad consultation with the volume editor, final editing, and liaison with the editor.

Volume topics for the past six issues of *Studies* have rotated among various social science disciplines. This year's issue devolved to the History Department, and it was the decision of the volume editor to produce an issue in which several Latin American scholars explore aspects of the dependency theory. The editors believe that this collection of essays represent significant contributions to the field of Latin American history by reason of their using new sources, exploring new areas, and employing new theoretical approaches.

As in the past, this journal is financed partially by The University System of Georgia. It is distributed gratis to libraries of state supported colleges and universities in Georgia, and to selected institutions of higher education in each southern state. Interested individuals or libraries may purchase copies for $3.00 each to help defray printing and mailing costs. Standing orders for the annual series are available at reduced rates.

It is with considerable pleasure that the editors submit to you this volume on Latin America.

John C. Upchurch
Professor and Chairman
Department of Geography
*General Editor*

# PREFACE

No modern nation is independent. Citizens of one nationality regularly become involved in the affairs of other countries through commercial, financial, diplomatic, political, religious, media, and other channels. Even so, only in recent years have historians given attention to the *systematic* study of this matter.

Developing an analytic model aids the investigator by demonstrating a possible relationship between seemingly isolated events, by guiding the researcher into new areas of study, and by enabling the specialist to project behavior patterns. During the past decade, perhaps by default, *dependency theory* has emerged as a popular theoretical point of departure.

Dependency theory has certain fundamental assumptions. (1) In every society, there are two classes: the ruling elite which, by monopolizing power, controls the powerless majority. (2) The government serves only the elite. There is essential continuity in foreign policy which joins together the elite interests of different nations. (3) Such a fusing of interests is of far greater benefit to the elite in the nation with the greatest quantity of technology, surplus capital, and merchandise to export. The ruling classes elsewhere are satisfied with lesser status and gain as agents of their superior counterparts. In effect, their nations are underdeveloped economic colonies, exporting raw materials to a developed metropolis. (4) Business firms built upon this unified linkage system must maximize profits to survive. Metropolitan decision-makers have no choice except to perpetuate the dependency of the colonies by regulating credit, supporting authoritarian government, and preventing the growth of competitive modernization by remitting profits from the periphery to the center of the system. (5) Ultimately, this movement of capital internationalizes the class conflict inherent in individual societies. An organized and enlightened working class majority will reorient production decisions away from profit-taking and toward meeting basic human needs without interpersonal and international exploitation.

Proponents of dependency theory have reminded others that *power* is not allotted equally. They challenge researchers to investigate the holders of power and their methods of acquiring and retaining it. Nevertheless, they often speak in generalities, confuse cause with effect, and find psychological security in gathering for a service of inflexible, reaffirming liturgy at professional meetings. Dependency assumptions need to be respected, but they also need to be tried and modified by many case studies.

Each essay in this volume makes a contribution relevant to that end and leaves questions for additional study. Lawrence Clayton delves into the history of one particular nineteenth century firm which rapidly grew into a diversified transnational, due more to fortuitous circumstances than to deliberate design. More individual business histories are welcome if less than diehard supporters can have access to company records.

Private enterprise indeed seeks public instrumentalities to support its goals, according to Kenneth Finney who nonetheless offers a variant theoretical basis. Phil Johnson and Ray Shurbutt demonstrate that early United States envoys to Brazil and Chile definitely tried to serve the commercial elite, but such representatives did not fare terribly well in that endeavor. Johnson reiterates the fact that neutral maritime principles set forth in Washington in the years before the War of 1812 were substantive issues in South Atlantic relations. Shurbutt describes State Department personnel in Chile as interfering in local affairs as much as any businessman might. Yet vast distance from the metropolis and personal incompetence precluded any effective and coherent policy toward the Southern Cone.

Frank Gerome and Louis Peréz provide two examples of ambitious Caribbean parties actively cultivating United States involvement as they played protectorate politics. Enticed into that web, the State Department further entangled itself in legalism and moralism. Manipulating people with the possibility of having the Marines sent in was as powerful a force as their actual presence.

Most United States citizens have known Latin America only indirectly, generally through the secular press and often through missionary reports to church memberships. Richard Millett shows researchers that missionaries who ventured where other North Americans seldom went left frequently overlooked accounts of social and political conditions. Millett presents a Methodist leader, preoccupied with support for the established order, but caught up in the early events of the Mexican Revolution. John Wesley Butler favored moral regeneration and abhorred armed intervention or upheaval. John Britton calls attention to the fact that the degree to which correspondents interpret events accurately determines how the North American public reacts. He presents journalist Carleton Beals as an example of a sophisticated analyst of rural modernization in Latin America. Of course, not all religious figures have been as staid as Butler nor all reporters as perceptive as Beals. Finally, James Horn examines the vehicles within the United States for expressing public sentiment about Latin American policy and the reasons why there was no direct involvement in Mexico despite the sheer size of the challenged oil interests.

Latin American studies has been a frequent theme for essays in the West Georgia College *Studies in the Social Sciences.* Eugene R. Huck edited Volume VI which contained the 1967 papers of the Southeastern Conference on Latin American Studies. Volumes I, V, VIII, and XI also included selections on Latin America in relation to other themes. Volume XVII therefore continues and expands this tradition with contributions from several states, discussing several Latin American nations.

Robert H. Claxton
Associate Professor of History
*Volume Editor*

# A SHARED PROSPERITY: W.R. GRACE & COMPANY AND MODERN PERU, 1852-1952*

By Lawrence A. Clayton

In the language of social scientists the term "modernization" has been interpreted in one sense to mean the emergence of a nation or people into the industrial and, in some cases, the post-industrial age, with all the accompanying assets and ills that one commonly associates with a modern, industrialized state. Almost, if not actually all, of the contemporary practitioners that concern themselves in one way or another with this phenomenon—the sociologists, the political scientists, the economists, and those few individuals whose mastery of the interdisciplinary approach makes them difficult to categorize—borrow from the historical background of their subject. In effect, they are all historians before they pass into the realm of their own disciplines. Nonetheless, the crucial framework for their studies, analyses, and paradigm-building is historical in nature.

Keeping the above in mind, the study encompassed by the title to this article deals with modernization from an historical perspective. The subject, W. R. Grace and Company, actively fostered change and development—aspects of modernization—through its commercial, agricultural, and industrial activities in Peru.

When a young Irishman named William Russell Grace arrived at Callao in 1852 he entered a country that had only tentatively been brushed by the modern age. It was a nation steeped in traditional ways and marked by rhythms more in consonance with its Incaic and Hispanic origins than those of the dynamic, industrializing nations of Europe and North America. When Grace's grandson, Joseph Peter, accepted the final expropriation in the 1960s of the last major properties owned by the company founded by his grandfather, a great portion of Peru had emerged, for better or worse, into the age called "modern". W. R. Grace & Co. was certainly neither strictly nor exclusively the handmaiden that accompanied Peru in this dramatic century. Yet this company introduced more commercial enterprises, more modern technologies, more industries, and more of the sinews of a modern and international transportation system than any other agency, company, or individual in that

*This article is an extended version of a paper presented at the Southern Historical Association meeting in New Orleans (November 12, 1977). The author wishes to acknowledge gratefully The University of Alabama Research Grants Committee for assistance during the summer of 1977.

period. Furthermore, the relationship between company and country was more often marked by cooperation and mutual regard in contrast to the adversary tone that developed so commonly between major United States corporations and Latin American nations in this same period.

When Grace began operations in the early 1850s, Peru remained largely on the fringes of the rapidly industrializing states of the northern hemisphere. There the textile manufacturer of Manchester, the iron maker of the Ruhr, and the railroad entrepreneur of New York all depended ultimately upon an expanding labor pool and an expanding market. These were, in turn, knit together with increasing efficiency by a rapidly developing transportation system based upon the utilization of the remarkable steam engine. In 1850 in Peru there existed no railroads, no iron foundries of scale, no mechanized textile mills, and very few people with an urge to change the cast and character of the nation's society and economy. Then in the 1840s a dramatic transformation occurred. Compacted bird droppings, guano, that had accumulated for centuries on islands off the Peruvian coast suddenly gained the attention of farmers in those very countries of Europe and North America that were currently in the vanguard of the industrial revolution. Between 1840 and 1847 the export of guano jumped from 6,125 tons to 100,000 tons; ten years later over 600,000 tons were being exported.[1] By 1860 "guano had become one of the largest of all Latin American exports . . . worth over $24,000,000."[2] Peru was being integrated as a major exporter into the machinery that drove the developing economies of the industrializing countries.

Guano itself was not an unknown ingredient. It has been in use for hundreds of years in Peru to enrich the soil when European and American farmers discovered its remarkable potency in the 1830s and 1840s.[3] Rapid agricultural growth that underpinned the rise of the industrial state placed a premium on these bird droppings rich in nitrogen that were collected from the Chincha Islands off southern Peru. By the time young Grace appeared in Callao, scores of European and American ships were making regular calls at the islands to load the fertilizer.

William Grace had arrived in Peru at the age of nineteen with a group of Irish immigrants who were slated to work on a sugar plantation near Lima. This group of immigrants had been drive from Ireland by famine and hard times like so many others of their countrymen in that era. However, they failed to prosper in Peru and either succumbed to disease or moved on within a year or two of their arrival.[4] Young Grace neither died nor moved on and soon found employment with a firm of English ship chandlers named John Bryce & Company. Grace had left Ireland earlier when thirteen, worked in New York for a short while, returned to his home country and then landed in Peru with the group of erstwhile colonizers. Why he stayed one can only surmise. Peru can be heady and exotic for many foreigners, and Grace was certainly enchanted,

as would be other members of his family in succeeding years. One suspects a good job exerted equal attraction to this ambitious young man, and John Bryce & Co. was just then riding the crest of the mid-century guano boom in its business of provisioning and refitting ships engaged in the trade.

Early in his career, Grace showed a critical sense of timing and opportunity that very seldom failed him for the next half century. Most of the guano ships had to proceed to Callao after loading at the Chincha Islands to revictual and refit for the voyage home. Grace proposed an innovation to his bosses at John Bryce: why not moor a supply ship permanently at the islands, pre-empting competitors and thus giving ships a much quicker and more profitable turnaround time. In 1855 Grace set up the storeship with himself as storekeeper. Not only were standard ships' stores dispensed—canvas, tackles, tar, blocks, pitch, but Grace acted as middleman for the fresh fruits, meats, and vegetables that were imported from the port of Pisco for the fleet. When he departed the Chincha Islands in 1862, Grace had made a sizeable profit for himself and John Bryce, and had acquired a wife as well, the daughter of an American ship captain on the guano trade.

During the decades of the sixties and seventies, Grace expanded his interest in John Bryce. The arrival in Peru of his younger brother Michael P. and a nephew James Eyre from Ireland, who were all employed by John Bryce, helped to transform that old firm so that by 1867 William and Michael had become partners with the two Bryce brothers. The Bryces were eventually bought out entirely by the Graces, and in 1876 the firm, which originally had been taken over from Pablo Vivero by his son-in-law John Bryce, became Grace Brothers & Company.

William had departed Peru in 1865 as a result if illness. He moved to New York where he was to live the rest of his life and established himself in 1866 in an office near Hanover Square next to his father-in-law's (Captain George Gilchrest of Maine) ship chandler's business. From here Grace began to trade with Peru. He chartered and acquired minority interests in downeasters and sent them to South America loaded with European and North American goods such as textiles, sewing machines, glassware, lamps, tools and medicines.[5] From Peru Grace imported guano and nitrates, a product for which Grace was the consignee in New York. Meanwhile, a brother of William's, John W., established a branch office in 1873 in San Francisco to take advantage of the brisk trade in lumber from Oregon destined for the construction of railroads on the west coast of South America, and wheat which was shipped to New York and then to markets in Europe. W. R. Grace & Company had been formed in 1871 as a partnership with Michael and a young man called Charles Flint to help take care of the expanding business. Flint later split with the Graces and founded the United States Rubber Company, but in the early 1870s his business acumen and his shipbuild-

ing father of Maine were both important attributes in the slowly expanding commercial network being created by William. Especially important was the Graces' role in the 1870s as the chief purveyors for Henry Meiggs, the amazing Yankee railroad building entrepreneur who visualized and commenced some truly bold projects before he died in 1877. The War of the Pacific (1879-1883) shattered this euphoric period for Peru, but it ushered in a new era for William Grace.

In 1880 he was elected the first foreign-born mayor of New York in a turn from business to politics. He ran for mayor on the Democratic ticket as a reformer supported by Tammany Hall, which for many years had existed almost as a caricature of graft and corruption in city politics and was trying to change its image. Grace's gravitation to politics was naturally born of an instinct for power. In 1880 he had taken part in the national Democratic Convention in Cincinnati. Furthermore he had always cultivated friends among the Democrats of New York. Being Catholic and Irish (although by now naturalized) certainly made him sensitive to a growing percentage of New York's voters who themselves were foreign-born and Catholic. The mayoralty campaign of 1880 was, nonetheless, close, and an incident from his earlier presence in Peru helped to get him elected. Republicans were making much of Grace's origins (Irish), his long residence abroad (Peru), and drawing the conclusion for campaign purposes that Grace was thus unfit to hold an American office. The first two claims were of course true. The conclusion, however, backfired. In 1862 two Union cruisers had put into Callao when news of the Union cause during the Civil War was particularly distressing. No Peruvian institution would honor the drafts which their paymaster, a Mr. Eldridge, offered in order to pay off the crews and buy much needed supplies. Someone sent Eldridge to Grace who "leaned back in his chair and said: 'I have faith in the Union and will give you all the money you need.'"[6] That story helped to swing sentiment and assisted Grace in winning the election, however apocryphal or true the tale may have been.

Once in office he turned against Tammany Hall and instituted a series of reforms that included reorganizing the street department to clean up an unsanitary and filthy situation and reforming part of the tax structure. During this term Grover Cleveland, then a reforming mayor of Buffalo, was nominated for governor by the Democratic party. Grace helped him in this endeavor and secured a friendship that propelled him further into national circles as Cleveland moved closer to and finally into the White House in 1885.

Grace ended his term in 1883 but was reelected again in 1885 when Cleveland dramatically moved into the presidency. The race for the chief executive had been particularly close in New York, and Grace's most successful campaign for mayor (winning by more than 10,000 votes) was credited with aiding Cleveland in carrying the state in the

national election. Grace continued his opposition to Tammany, and his reformist policies included balancing the budget and better organizing the Police Department, while Michael Grace, then also in New York, oversaw the business. By the mayor's second term it was clear that the disastrous War of the Pacific had created grave problems for Peru and Grace Brothers. Michael Grace returned to Peru in 1886 and William returned to business which, in truth, he had never left entirely during his public service.

The War of the Pacific had stripped Peru of its rich nitrate fields in the south—claimed and occupied by the victorious Chileans—, had increased the tremendous debt that Peruvians had already incurred over the past decades to European creditors (debts secured by the rapidly depleting guano resources and the lost nitrate fields), and had humiliated the Peruvian nation. The most active financial crisis centered on about $260,000,000 in bonds held by European (largely English) investors which could not be serviced or redeemed. Until this debt was satisfactorily arranged, Peru possessed no credit and little chance of recovering from the war. The Grace family interests had been closely allied to the state of the Peruvian economy every since William had landed at Callao at mid-century, and thus it was not unnatural for Michael to take a deep interest in the post-war situation, especially with reference to the debt.

Not only had the Graces lost substantial revenue from the eclipse of the Peruvian guano and nitrate trades—the former because of depletion and the latter because of the loss of nitrate-rich territories to Chile—but the acquisiton of interests in the still uncompleted Central Railroad of Peru to the potentially rich silver and copper mines of La Oroya and Cerro de Pasco made Michael Grace particularly sensitive to the Peruvian plight. It was, after all, not only a Peruvian but also a Grace problem. In this situation Michael Grace led the negotiations for five years, 1885-1890, among the interested parties: the bondholders of London, the Peruvian government and on behalf of his own concessions in the uncompleted railroads and in the mining regions of central Peru. The settlement finally reached, called the Grace-Donoughmore Contract, forced both sides into some harsh compromises. The bondholders formed themselves into the Peruvian Corporation and agreed to liquidate the immense debt in favor of receiving the following main concessions: control of the railroads of Peru for a period of sixty-six years and a government subvention of £80,000 a year based on customs revenue to finance further construction of the railroads. The Corporation also assumed the obligation of completing the Central Railroad to La Oroya. Michael Grace himself benefitted from the arrangements in two ways: through commissions; and by tying in his concessions on the Cerro de Pasco mining property and the proposed railroad to that area which he had acquired from Henry Meiggs' inheritors. While the complicated financial maneuvers have never been fully unraveled, the Grace Con-

tract—a controversial political subject in Peru as one might suspect—removed a major obstacle in Peru's ability to generate foreign loans, subsidies and, ultimately, good credit at all levels.[7]

Michael Grace had arrived in Peru at the age of nine, had been educated in Peruvian schools, and had always been closer to the country than his older brother. Nonetheless, William had supported Michael fully during the negotiations that led to the settlement of the debt. Certainly there is no specific period to which one can allude as the formative one in the association of Grace interests with Peruvian interests; however, the difficult negotiations undertaken by Michael Grace between 1885-1890 reinforced his personal and business commitments to that country, and probably did more to "peruvianize" the Grace enterprises than any other set of events in the nineteenth century.

As the Grace business slowly recovered in concert with the crippled Peruvian economy, William Grace in New York expanded his activity in shipping, and at the end of the century incorporated the Grace partnerships in Connecticut as W. R. Grace & Company. Trading had always been at the heart of the Grace enterprises, and it was natural to include shipping as a major interest. Grace had been chartering ships to haul goods between Peru and North America as early as the 1870s and by the 1880s he had purchased some vessels and organized them into the Merchants' Line. In 1898 Grace, along with a New York banker Levi P. Morgan, bought the concession from the Nicaraguan government to build and operate a trans-isthmian canal. The object, of course, was to shorten the long voyage from North America's East Coast to South America's West Coast and acquire a distinct advantage over European competitors who still controlled the bulk of Peruvian trade at the turn of the century. The Grace/Morgan interests were ultimately outmaneuvered in Congress by the advocates of a canal across the isthmus at Panama. Nonetheless the benefits to be acquired from such a canal accrued to W. R. Grace & Co. and the United States as equally as if it had been built at any other point on the isthmus. When the canal opened for business in 1914, it was no meaningless coincidence that a Grace-owned ship was the first commercial vessel to steam north through this path of water. Grace Lines were organized in 1916, and the characteristic green, black and white striped funnels atop Grace Lines' ships became the most visible symbol of Grace in Peru and along the West Coast of South America generally for the next half century.

The acquisition of a sugar estate near Trujillo in Northern Peru in 1883 presaged a new direction for the Grace brothers in that country. The 5,800 acre Alzamora property named Cartavio became Grace property in the settlement of a debt, and in 1891 Grace organized the Cartavio Sugar Company to manage and operate this sizable sugar plantation in the Chicama Valley. During the course of the next two or three decades, most of the cane growing properties in the Valley were

consolidated into three major estates, one each owned by the Gildemeister family, the Larco family, and Grace. Production and efficiency increased with consolidation, and Grace's investment (by default initially) in this area furthered the company's identification with the Peruvian economy.[8]

Grace expansion into the productive and industrial sectors was hastened in 1904 through the acquisition of the Inca Cotton Mill and in 1914 through a part ownership in the Vitarte Mill. In 1927 Grace furthered its presence in the textile industry by acquiring the La Victoria Mill and assumed a majority position among Peruvian textile manufacturers.

At this point it might be of benefit to take stock briefly of Grace's activities from the 1850s to the First World War and see how they have been wedged into various theories social scientists invoke today to explain the past. Very simply, two divergent theories have evolved over the past several decades.[9] One is the diffusionist, and the other is the dependency explanation of modernization. The diffusionist views the gradual extension of the benefits of modernization (manifested by indicators ranging from complex formulae to determine the rise of real wages to the number of flush toilets per capita) as an evolutionary process radiating from the first areas to industrialize (Europe and North America) in ever-widening circles that eventually ripple through the farthest reaches of the developing world. The dependency theorist views the retention and reinforcement of a colonial relationship between the First and Third Worlds. This relationship inhibits the real spread of benefits by chaining the under-developed areas (the periphery) into a lockstep economy which only exists to serve the needs of the developed world (the metropolis). The complexities and nuances associated with each theory and its many branches can often leave the historian asking himself the simple question, "but what happened to the facts?"

Grace's activities from mid-nineteenth century to the early twentieth century have been cast almost mechanically into the form preferred by the theory one advocates, or "ism" one subscribes to. The sinister school views Grace acts as representations of imperialism which sought markets and monies ruthlessly at the expense of everything native (native industry, native independence, native pride). The opposing school interprets the era no less myopically by rigidly excluding any truths and facts that weigh negatively on the scales. The role that Michael Grace played in settling the Peruvian debt after the War of the Pacific well demonstrates the problem. In one scenario, Grace is cast as the devil. He helps to alienate great portions of the Peruvian patrimony (such as the railroads and the mines) and collects handsome commissions and other compensations that callously ignore the damage to the Peruvian nation. His alter-ego, on the other hand, sacrifices his time and his energy in helping the Peruvian government come to an essential understanding with the bondholders, and in the process Grace demonstrates an undiluted

love of the *patria*—Peru—which has become his adopted country. Analyzing the influence of foreign investments abroad forms part of the larger theme of modernization.[10] In this respect, historical analysis—free of doctrinal restraints—can be the most valid way to study and properly interpret such incidents as the Grace contract. Michael Grace's behavior, in the context of his time, was neither reprehensible nor free of criticism. It represented an advance of capitalism with concurrent benefits to the individual and the country. Until more of the facts are revealed, other interpretations of the Grace contract appear distorted by prior concepts of capital's role in the development of Peru.[11]

W. R. Grace & Co. grew and prospered during the era of the First World War. That cataclysmic drama in Europe proved fruitful for United States enterprises abroad which prospered under the banner of neutrality until 1917 and then as victorious and healthy competitors—unencumbered by the effects of the war that ravaged the European continent and its population—in the post-war era. Grace Lines grew rapidly from 1916 into the decade of the 1920s, especially spurred on by shortages and high freight rates directly attributable to the war and its consequences. The company expanded its operations in Peru in the manufacture and distribution of textiles and continued as the country's major importer and exporter. The establishment of the International Machinery Company (IMACO) in 1920 helped secure Grace's position in the importation and service of much of the hard and software that flowed into Peru. IMACO was or became the sole distributor for such firms as General Electric, Socony-Vacuum, Royal Typewriter, B. F. Goodrich, and Bucyrus-Eire.[12]

Further expansion in the sugar business and an important new addition in the novel and rapidly developing field of air transportation were made by the company during the Oncenio years (named after President Augusto Leguia's eleven year tenure from 1919-1930). In 1927 the 6,900 acre Paramonga sugar plantation, located about 120 miles north of Lima in the Pativilca Valley, was purchased. Ten years later it became the site of one of the most original and ultimately successful industrial operations ever sponsored in Latin America by a major United States corporation.

More romantic—and equally lucrative as well—was Grace's pioneer efforts done in tandem with Pan American Airways to bring international air service to Peru and other portions of the West Coast of South America. The Germans, through their Condor Line, and the French in Brazil had already begun operations in parts of Latin America when Grace and Pan Am formed Pan American-Grace Airways (Panagra) in 1928 as a joint effort with each subscribing $500,000 and receiving a fifty percent interest in the new company. By the middle 1930s Panagra was operating two flights a week north and two south on Douglas craft from South America to the United States (Buenos Aires, Montevideo, Santiago, Lima, Guayaquil, Cristóbal, and Miami) and utilizing refinished Ford

trimotors to haul cargoes within Peru to areas considered almost inaccessible before the advent of the airplane.[13]

The decade of the 1930s, however, severely upset the world order, triggered momentous events in Peru and forced Grace to adjust to a depression economy. Diminished profits caused by a shrinkage in trade and severe drops in the prices of commodities world-wide—including sugar that Grace grew and exported from Peru—catalyzed chemical research within the company with the goal of upgrading some products and perhaps producing some new ones to help revitalize Grace interests and profits in Peru.[14]

Beginning in 1931 preliminary research in the small laboratory at Hacienda Cartavio was undertaken to explore the various alternatives for utilizing the by-products of the sugar making process. Rum under the label Ron Cartavio began to be produced, but rum in itself was a well known derivative from molasses. Several other possible avenues were explored before settling on the promise of employing bagasse (the fiber residue that remains after the juices have been ground out of the cane) to make a corrugating medium (the fluted material that goes between the liner board) for the manufacture of cardboard. Or, why not try to make paper products from bagasse commercially? It is important to emphasize that no new techniques as such were being invented. The uniqueness of research was inherent in the *combination* of various processes already known to the world of the sugar producer and the paper maker.

In 1935 a small board and paper mill in Whippany, New Jersey was leased by Grace to be used as a pilot plant. Bagasse was imported from Cartavio and the experiments commenced. A successful batch of corrugating medium was manufactured from the bagasse mixed with some wood pulp, the traditional source of paper. This corrugating medium was marketed in the New York area and the engineers and technicians pioneering the process then received the approval of the company's major officers to purchase a paper mill and install it at Paramonga. The machinery was made to order for Grace by the German firm of Voit and in 1937 and 1938 it was shipped from Bremen and Hamburg to Peru. In 1939 the paper mill went on line and within a year Paramonga was turning a profit based on this pioneering process.[15] During the war years another paper machine was purchased in the United States to expand Paramonga's line of products. Heavy sacks of concrete, boxes for consumer products, bags for groceries, and a host of other paper and cardboard items filtered rapidly into the Peruvian commercial system and facilitated the modernization of the country.

The Second World War forced improvisation on a world wide scale to make up for lost suppliers (witness the German manufacture of synthetic oil), and Grace engineers were forced to innovate as well. Caustic soda was necessary in the papermaking process, but it became quite

scarce during the war. The knotty problem was solved by the electrolysis of salt, available in large quantities along the Peruvian coast, which produced caustic soda. Chlorine and muriatic acid were derived from this process as well. By the 1960s these by-products were in turn being broken down by high technology operations that yielded polyvinyl chloride, or PVC, a plastic basic to many diverse and modern industries. The growing internal Peruvian market always absorbed the majority of Paramonga's products, and these particular enterprises became bellweathers for industrialized Peru.

A century after William Russell Grace had arrived in Peru, W. R. Grace & Co. was described in the following years: "There is hardly a Peruvian participating in the money economy of the country who does not eat, wear, or use something processed, manufactured or imported by Casa Grace."[16] In 1953, W. R. Grace & Co. was the second largest private employer in Peru with over 11,000 people working for the parent company and its subsidiaries. Biscuits, textiles, sugar, paper, Panagra, and myriads of other products and services were distributed by the old trading company that still retained some of the original commercial flavor imparted to it by its founder. Ninety-nine percent of its employees in Peru were Peruvian and less than twenty percent of its payroll left Peru, again perhaps in reflection of its long and intimate identification with that country.

* * *

The purpose of this article was to present the barest overview of a most remarkable company's association with a most remarkable country during a dramatic century of rapid change and development—some of it exuberant and of tremendous benefit to the country, some of it tragic and the agent of significant social and political problems. The longer work slowly emerging from the research accomplished, as well as that still to be done, will be more particular and interrelated with Peruvian and United States history in general.

One theme that appears consistently when studying the presence of Grace in the development of modern Peru is the lack of models—political, social, economic, abstract, or mechanistic—that can be readily invoked to explain the relationship. It is a complex country that has sought some unique answers in response to the challenges of the modern world. The almost symbiotic relationship that developed between Peru and Grace in this era seems to imply that the concept of interdependency is as valid as dependency in analyzing the modern history of Peru.

## NOTES

[1] Ernesto Yepes del Castillo, *Peru, 1820-1920: un siglo de desarrollo capitalista* (Lima: Instituto de Estudios Peruanos, 1971), p. 60; Jonathan V. Levin, *The Export Economies: Their Pattern of Development in Historical Perspective* (Cambridge, Mass.: Harvard University Press, 1960), p. 116.

[2] Levin, *Export Economies,* p. 31.

[3] W. M. Mathew, "Peru and the British Guano Market, 1840-1870," *Economic History Review,* 2nd ser., 23:1 (1970), 120 ff.; "Foreign Contractors and the Peruvian Government at the Outset of the Guano Trade," *Hispanic American Historical Review,* 52:4 (November, 1972), 598-620, and; "A Primitive Export Sector: Guano Production in Mid-Nineteenth Century Peru," *Journal of Latin American Studies,* 9:1 (May, 1977), 35-57, has cornered the academic market on this commodity. In all seriousness, the three articles surely must be the precursors to the longer, coherent work on guano which students of nineteenth century Peru and her relations with Europe and North America can hopefully anticipate seeing in the future.

[4] Many disparate sources exist for the early history of William Russell Grace in Peru. See, for example, William S. Bollinger, "The Rise of United States Influence in the Peruvian Economy, 1869-1921," (unpublished Master's Thesis, UCLA, 1971), pp. 100 ff; J. Peter Grace, Jr., *W. R. Grace (1832-1904) and the Enterprises He Created* (New York: Newcomen Society, 1953), p. 9 ff.; "Casa Grace," *Fortune* 12:6 (December 1935), 158; and "Amazing Grace: The W. R. Grace Corporation," North American Congress on Latin American (NACLA), *Latin America and Empire Report,* 10:3, 2-3.

[5] J. P. Grace, Jr., *W. R. Grace and the Enterprises,* 14.

[6] "Casa Grace," *Fortune,* 12:6 (December, 1935), 158.

[7] Rory Miller, "The Making of the Grace Contract: British Bondholders and the Peruvian Government, 1885-1890," *Journal of Latin American Studies,* 8:1 (May, 1976), 73-100, is the best unraveler to date. See also Bollinger, pp. 128-136.

[8] Peter F. Klarén, *La formación de las haciendas azucareras y los orígenes del Apra* (Lima: Instituto de Estudios Peruanos, 1970), or the English version, *Modernization, Dislocation, and Aprismo: Origins of the Peruvian Aprista Party, 1870-1932* (Austin: University of Texas Press, 1973), describes the process of consolidation well, but views this development as disruptive and negative.

[9] C. Richard Bath and Dilmus D. James, "Dependency Analysis of Latin America: Some Criticisms, Some Suggestions," *Latin American Research Review,* 11:3 (1976), 3-54, have written the sanest and most balanced review of dependency literature to date. They posit the problems well, are rigorous in their critiques, and even suggest some paths out of the labyrinth. See also Ronald H. Chilcote and Joel C. Edelstein, eds., *Latin America: The Struggle with Dependency and Beyond* (New York: John Wiley and Sons, 1974) for a provocative, albeit slanted, interpretation of the dependency-diffusionist theories of modernization, and David Ray, "The Dependency Model of Latin American Underdevelopment," *Journal of Interamerican Studies,* 15:1 (February, 1973), 4-20, for a well-argued critique of the stereotyped oversimplifications which view all foreign investments as "invariably exploitative and invariably detrimental to Latin American development."

[10] Marvin D. Bernstein, ed., *Foreign Investment in Latin America: Cases and Attitudes* (New York: Alfred A. Knopf, 1966), brought together a well-selected group of essays that illustrate the problems of interpreting United States investments abroad.

[11] My thanks to Barbara Tenebaum, Department of History, Vassar College, whose comments on the original version of this article delivered as a paper at the Southern Historical Association meeting, November 12, 1977, brought to my attention many questions related to economic development in the nineteenth and twentieth centuries that have to be answered in future research on Grace and Peru.

[12] Eugene W. Burgess and Frederick H. Harbison, *United States Business Performance Abroad: The Case Study of Casa Grace in Peru* (National Planning Association, 1954), p. 37.

[13] "Casa Grace," *Fortune*, 12:6 (December, 1935), 164; Andrew B. Shea, *Panagra: Linking the Americas During 25 Years* (New York: Newcomen Society, 1954); "The Long Cold War of Panagra," *Fortune*, (June, 1952), 117 ff.

[14] Robert Sobel, *The Age of Giant Corporations: A Microeconomic History of American Business*, 1914-1970 (Westport, Conn.: Greenwood Press, 1972), p. 122, describes the retrenchment and technological advances that industries in general made in the 1930s.

[15] Burgess and Harbison, United States Business Performance, pp. 29-32.

[16] *Ibid.*, pp. 3-4.

# OUR MAN IN HONDURAS: WASHINGTON S. VALENTINE

By Kenneth V. Finney

For the most part, Honduran history has been written around the careers of a group of larger-than-life individuals: such men as the Conquistador Hernan Cortés, the Liberator Francisco Morazán, and the United Fruit Company Banana Baron Samuel Zemurray. Another name that needs to be included on this list of Honduran "giants" is Washington S. Valentine, whose active career in Honduras spanned the years 1880 to 1910.

Valentine was the son of a New York import-export merchant who went to Honduras in 1880 to help manage his family's newly-begun silver mine. Because Valentine knew next to nothing about mining, the Rosario Mining Company's board of directors gave him the title of Secretary; but he learned quickly and soon took charge of the company's works perched on the mountainside above the village of San Juancito, ninety miles north of Tegucigalpa, in the center of Honduras. Under Valentine's careful guidance, Rosario developed into a lucrative mining venture—the "commanding height" of the backwater Honduran economy.[1]

As local representative of what quickly became the largest enterprise in the country, Valentine wielded considerable influence in Honduras. To further consolidate his position, he forged close personal relations with the small group of social elites in Tegucigalpa. He hosted a steady round of well-attended parties, staged elaborately choreographed excursions to the mines of San Juancito, and contributed generously to worthy public projects.[2] He clearly knew the value of goodwill gestures: in 1887, for example, Valentine, while in the United States on vacation, met sixteen young students, sons of the most prominent families in Honduras, at the wharf in New York. For the next two days he led them in a whirlwind tour of the city. Into those two days Valentine crowded a supper at Martinelli's on Fifth Avenue, a party at Tony Pastoris', a private champagne supper at the Hoffman House, a visit to the presses of the New York *World*, and a stop at the Eden Mussee.[3] "Si, Papa. Señor Valentine es *muy* simpático."

Valentine formed particularly close relations with Marcos Aurelio Soto and Luis Bográn, presidents of Honduras during the 1880s and 1890s. The unequivocable success of Rosario, his mining company, provided highly visible, irrefutable vindication of these presidents' aggressively developmentalist policies. Timely personal favors and a shower of gifts did the rest.[4] Valentine's "investments" in these two presidents paid off in such benefits as generous tax concessions and presidential support for the mining company whenever conflicts of interest broke out over such scarce natural resources as water and timber.[5]

A particularly hard-fought land battle which erupted in 1888 illustrates the degree to which Valentine had insinuated himself into the fabric of Honduran politics. The Rosario Mining Company had received a land concession on which to build a new mill to process ore. Valentine attempted to evict three long-time residents from homes located within the boundaries of the concession. The threatened home owners took him to court and, surprisingly, the lower, appelate, and supreme courts all ruled against Valentine. Momentarily taken aback by this unusual display of judicial independence, Valentine appealed to President Bográn. Bográn obligingly over-turned the Supreme Court's decision by issuing an executive fiat giving Valentine what he wanted. An official editorial in the government newspaper noted that "The rights of mine owners cannot, and should not, be subordinate to the dilatory and excessively rigorous formalism of. . .court procedures."[6] So much for due process!

Thus by using the personal touch to assure his mining enterprise a smooth path, Valentine wrought two long-term transformations of the Honduran political economy. In the first place, he accelerated and intensified the dominance of the executive over other branches of government. Secondly, he initiated a dependency-linked staple export economy in Honduras that came to real fruition later during the heyday of the Banana Republic![7]

Valentine continued with Rosario until 1919, but as early as 1890, he began widening his horizons.[8] His most ambitious endevor was acquisition of the so-called Honduran Interoceanic Railroad as a base from which to monopolize banana production in the country.[9] Much more than his earlier mining activity, Valentine's railroading career thrust him into the forefront of Honduran-American relations.

In 1893 Valentine used his influence to lease a short stretch of narrow gauge line already built from Puerto Cortes on the North Coast of Honduras inland some fifty miles by British engineers at enormous cost in the mid-1800s.[10] For his rent he got a "poor old cripple toy locomotive", minus smoke stack and cow catcher, that coughed, wheezed, and sputtered as it moved gingerly along rotten ties and rusty rails. Portions of the line often sank into the ooze. Behind the engine trailed a couple of miniature flat cars and a makeshift coach fashioned from an abandoned box car.[11]

Unfortunately, in 1894 a bloody coup by self-proclaimed Liberals wiped out Valentine's insider advantage.[12] Nonetheless, because of his prominent standing as manager of the country's foremost mining company, the new regime allowed Valentine to continue operating the railroad. But the Liberals insisted that he make come true the long-held dream of a railroad from coast to coast. However, British bondholders held a lien amounting to almost six million pounds sterling against the railroad, and before Valentine could extend the railroad to the Pacific Coast, he would have to settle with the bondholders.[13]

The bondholders bluntly rejected his first proposal to refund the debt on a basis that would have scaled it down by three fourths.[14] Smarting but undaunted from this rebuff, Valentine induced a number of American railroad magnates and financiers such as Cornelius Vanderbilt, J. P. Morgan, and John Jacob Astor to join him in founding The Honduras Syndicate.[15] Valentine clearly intended to use this enormously prestigious Honduras Syndicate to steamroll all opposition by sheer magnitude of enterprise.

The cornerstone of the Syndicate venture was the Commercial Bank of Honduras which Valentine chartered in 1897. This bank—the country's first—not only proposed to handle Syndicate finances but was also designated by charter to serve as fiscal agent of Honduras. As fiscal agent, the bank received a special commission to settle the Honduran debt. In short, Valentine could now face the bondholders assured of official support: a very nice big "stick" to carry in the right hand. To reassure the bondholders that Honduras would not immediately lapse into default again, the Syndicate bank assumed joint management of the country's custom houses, took over the coast guard to reduce smuggling, and began operating the national mint.[16]

For several years, Valentine tried every trick in his bag to help the Syndicate become established and forge ahead. His best efforts came to naught. Exotic junkets aboard Astor's yacht to Honduras, media blitzs, and intensive bargaining with the bondholders all proved counterproductive. By the end of 1898, the Syndicate obviously had failed to unravel the railroad Gordian Knot of debt. Valentine's frustrated suggestion that Honduras cut the knot by repudiating the debt only "shocked" capitalists on both sides of the Atlantic. Thereafter things fell apart.[17]

By the turn of the century, Valentine realized the futility of attempting to secure the railroad by negotiation and enterprise. He did not, however, relinquish his dreams for a railroad-banana monopoly; he merely changed tactics. Thereafter, Valentine resorted to diplomatic and legal threats. For instance, he once returned to Honduras aboard an American gunboat to appear that he spoke for the U.S. Department of State in Honduras. Taking advantage of this misrepresentation he tried to bully Honduras with threats of American intervention if they did not immediately award him clear title to the rail line.[18]

Valentine's threats—which undoubtedly appeared real enough to the Hondurans given the general temper of American policy in the Caribbean at the time—put the Hondurans in an awkward position. Events grew decidedly more precarious when the British bondholders decided to wrest control of the railroad for themselves by foreclosing on the mortgage.[19] The bondholders prevailed upon British officials in Central America to take up the cudgels for them.[20] Trapped between

Valentine's Big Stick and bondholders' cudgels, the Honduras government stalled.[21]

Postponement only multiplied difficulties. Yet a third party of British and American capitalists formed the Squier Syndicate in New York and mounted a real effort to gain control of the railroad. Fortunately for Valentine, who continued to lease and operate the line, the American minister in Guatemala blocked both the bondholders and Squier efforts by defending what he mistakenly perceived to be Valentine's "equity" in the line.[22]

Meanwhile, Honduras had undergone a hard-fought election, which was followed—as usual—by a short civil war. The intensely nationalistic Manuel Bonilla won both the election and the war.[23] He then allowed Valentine's lease to expire and for the next four years ran the railroad as a government enterprise.[24] Valentine protested what he called the "illegal" seizure of his railroad and filed a damage claim for more than a million dollars against Honduras with the American Department of State.[25] Officials in Washington, temporarily exercising uncharacteristic restraint, refused to become involved, and Valentine shortly withdrew his claim.[26]

So might have ended Valentine's railroading career, except in 1907 another bloody civil war brought down the Nationalist regime of Manuel Bonilla. President Taft and Secretary of State Knox felt moved to intervene and re-establish peace. The desperate political and economic straits of the lackluster American-imposed regime provided the ever-vigilant Valentine with an opportunity to secure a thirty-year lease of the railroad.[27] Needless to say, he took it. Immediately the bondholders trotted out the debt question again. This time the able and intelligent British Minister to Guatemala, Lionel Carden, hammered out a sensible and acceptable refunding scheme, acceptable, that is, to everyone except American Dollar Diplomats. Loath to tolerate any revitalization of British influence in Central America—especially Honduras—these officials cast about for an American alternative. Valentine again alertly grasping the situation, rejoined forces with J. P. Morgan and formulated a counterproposal. Although considerably more onerous for the Hondurans than the British one, it did seem to have official American support, which was an important consideration.[28]

By this time, circumstances had occurred which were destined to change the outcome of the rail question. Since Valentine had last tried to dispose of the Honduras debt, a new force had affected the state's political economics: the large-scale banana companies. The Valentine-Morgan scheme to saddle Honduras with a Santo-Domingo style customs receivership so preoccupied Samuel Zemurray, President of the Cuyamel Fruit Company, that he financed a filibuster expedition from New Orleans to thwart it. In the maelstrom that followed, the USS *Tacoma* chased Zemurray's yacht, the *Hornet*, around the Caribbean; derelict

Illinois Central railroad engineer Lee Christmas found his true vocation as a hired gun in Central America; progressive Democrats in the U.S. Senate led by Robert LaFollette derailed Knox's Grand Design for the Caribbean by refusing to ratify a treaty incorporating the Morgan-Valentine Plan; and worst of all the Honduran legislature also rejected the treaty. Through the dust raised by frenetically-paced events, one sees Valentine's star set and the rise of the Banana Barons.[29]

This brief survey of the highlights of Valentine's career underscores the centrality of certain individuals in Caribbean affairs during the late nineteenth and early twentieth centuries; this despite the Marxist injunction against bourgeois "dealling in personalities." At the same time, however, Valentine's career presents certain problems of interpretation. At least three distinct theses could be advanced. A *Liberal* explanation would emphasize the diffusion of development made possible by Valentine's entrepreneurial contribution to Honduran economic growth—especially his early mining activity. That more benefits did not trickle down to Honduras, Liberals would attribute to structural or monetary bottlenecks in the path of modernization. A second perspective, the *Radical* interpretation, would characterize Valentine as an early practitioner of American imperialism who laid the foundations of the establishment of underdevelopment in Honduras through the creation of dependency linkages. Radicals would enthusiastically endorse the sobriquet "The Sucking Vampire of Honduras" given Valentine by Honduran pundits.[30] Regretably, these two perspectives inadequately illuminate Valentine's career. Both reduce the human element to theoretically necessary, but basically uninteresting, statistical ciphers. This sort of reductionism is indefensible. What is required to capture the importance and interrelations of both the parts and the whole is a perspective based on an ecological model.

A *Technological* perspective, appropriately framed along ecological lines, surpasses in explanatory power the overly materialist and reductionist Liberal and Radical perspectives. For as Jacques Ellul puts it in his book, *The Technological Society*, "no social, human, or spiritual fact is so important as the fact of technique in the modern world."[31] Not only is modern and contemporary man's world increasingly dominated by mechanisms of all sorts, but one of the most basic values which shapes the goals and procedures of Technological Man, as Victor Ferkiss has labeled us, is a deep-seated faith in the efficacy of technology. Increasingly both the "goods" and "bads" of life derive from the manipulations wrought by our technological exurberance.[32] In contrast, what we hesitantly might call Traditional Man does not share this technological fetish. Traditional Man, as the definition suggests, rejects ratiocinated technology in favor of accustomed ways or acts spontaneously with little premeditation.[33]

Space prohibits depicting a fully elaborated Technological per-

spective based on ecological principles. Suffice to say that far more than possible using Liberal or Radical perspectives, Valentine's influence on Honduras makes sense when studied from such a Technological perspective. Within the conceptual framework afforded by the opposition of Technological to Traditional Man, Valentine emerges as an early carrier of the virus of North American technological civilization spreading contagion among the predominantly Traditional Hondurans. He introduced a great many specific technologies such as the air drills he installed in his mines and the telephones with which he linked San Juancito and Tegucigalpa.[34] This importation of hardware, while notable, is overshadowed by the more basic role he played as a model for a new set of values, attitudes, and behavior patterns—what one theoretician rather inelegantly described recently as "the transplantation of expectations produced by incumbency in technocratic roles in modernizing societies."[35] Valentine inaugurated a fully modern industry at the mines above San Juancito. This endeavor helped forge strong legal and economic techniques later used to set up the North Coast banana enclave. He also did much to re-introduce Honduras into the mainstream of the techniques modern high finance. Moreover, he taught the Hondurans many a lesson on "socio-political" technology as he organized his miners like a veteran Chicago wardheeler or mobilized all the human and physical resources of Tegucigalpa to combat an epidemic of small pox.[36] Most important of all, however, he inflected Hondurans with the spirit of laissez innover.[37] Not all Hondurans contracted "galloping technitis" immediately, and other carriers of this "disease" followed in his footsteps. But in the final analysis, it is better that Valentine be remembered as one who spread technology rather than reducing him to a mere Cartesian splinter in some Liberal or Radical theoretician's macro-model.[38]

## NOTES

[1] Kenneth H. Matheson, "History of Rosario Mine, Honduras, Central America," *The Mines Magazine* (June, 1961; July, 1961) 33-38, and 22-28 respectively; and Kenneth V. Finney, "Precious Metal Mining and the Modernization of Honduras: In Quest of El Dorado," (Ph.D. Diss., Tulane University, 1973), *passim.*

[2] *La Nación* (Tegucigalpa), December 16, 1887, p. 5; January 6, 1888, p. 2; February 8, 1888, p. 2; *La República* (Tegucigalpa), September 17, 1887, p. 1; November 5, 1887, p. 3; and *Honduras Progress* (Tegucigalpa), May 31, 1888, p. 3.

[3] Rafael Heliodoro Valle, "Cubanos Patriotas en Central-América," *Revista del Archivo y Biblioteca Nacionales.* 20 (October, 1941), 221-223; Louis Valentine to Luis Bográn, Tegucigalpa, April 12, 1887, in Colección Luis Bográn (hereafter cited as CLB), Correspondencia de Tegucigalpa (1887). This collection of papers is housed in the Archivo Nacional de Honduras, Tegucigalpa (hereafter cited as ANH).

[4] W. S. Valentine to Bográn, San Juancito, August 3, 1887, CLB, Correspondencia de Tegucigalpa (1887).

[5] *La Gaceta* (Tegucigalpa), July 29, 1897, pp. 316-317. For tax concessions see Finney, "Precious Metal Mining," pp. 334-347, 351-353. For resource competition see Kenneth V. Finney, "Rosario and the Election of 1887: The Political Economy of Mining in Honduras," (forthcoming 1978?).

[6] *La Gaceta*, September 26, 1888, p. 1.

[7] Finney, "Precious Metal Mining," 414-425.

[8] William A. Prendergast to Edna Valentine, December 7, 1944, New York and Honduras Rosario Mining Company, Company Archive, Historical File.

[9] Charles Abbey Brand, "The Background of Capitalistic Underdevelopment: Honduras to 1913," (Ph.D. Diss., University of Pittsburgh, 1972), p. 149; Kenneth V. Finney, "Washington S. Valentine: The Yankee Who 'Bought' Honduras," (Un pub. Ms. 1975).

[10] Charles L. Stansifer, "E. George Squier and the Honduras Interoceanic Railroad Project," *Hispanic American Historical Review*, 46 (February 1966), 1-27; Gene S. Yeager, "The Honduran Foreign Debt, 1825-1953," (Ph.D. Diss., Tulane University, 1975), p. 148; *La Gaceta*, October 24, 1893, p. 304.

[11] Albert E. Morlan, *A Hoosier in Honduras* (Indianapolis, 1897), pp. 64-65; 100-104.

[12] Aro Sanso [Ismael Mejía Deras], *Policarpo Bonilla* (Mexico, 1936); pp. 81-267; Gustavo A. Castaneda S., *El General Dominguez Vásquez y su tiempo* (Tegucigalpa, 1934).

[13] *La Gaceta*, October 27, 1894, p. 686; December 25, 1895, p. 661; [El Observador], *El negocio Valentine* (Tegucigalpa, 1911), 11-12.

[14] Corporation of the Foreign Bondholders Protection Association, *23rd Annual Report (1895)*, 180-186; Yeager, "Honduran Foreign Debt," 241.

[15] *El 5 de Julio* (Tegucigalpa), February 1, 1896, p. 3; *La Gaceta*, April 28, 1897, pp. 205-211; W. S. Valentine to Manuel Ugarte, June 28, 1897; Jacob R. Shipherd to Policarpo Bonilla, January 11, 1897; copy of James Cooper to Chauncey Depew, July 26, 1897; and W. S. Valentine to Policarpo Bonilla, July 9, 1897 all in Colección Policarpo Bonilla (hereafter cited as CPB) in ANH.

[16] *La Gaceta*, April 28, 1897, pp. 205-211.

[17] Finney, "The Yankee," *passim;* Pedro J. Bustillo, *El gobierno y el sindicato* (n.p., 1898), p. 4.

[18] [Leslie Coombs?], "Morgan-Honduras Loan. . .1898/1909," Tulane University, Rare Book Cover, p. 6; W. E. Alger to Francis B. Loomis, Despatch 88, November 3, 1903, U.S. National Archives, Records of Department of State, Consular Despatches, Puerto Cortés; Bondholder *Report No. 26 (1898)*, p. 223.

[19] *Diario de Honduras* (Tegucigalpa), January 8, 1903, p. 1; Bondholder *Report No. 29* (1901-1902), pp. 208-210.

[20] Bondholder *Report No. 30 (1902-1903)*, p. 201.

[21] Bondholder *Report No. 29 (1901-1902)*, pp. 208-210; United States Department of Commerce, Bureau of Commerce, *Railways of Central America and the West Indies*, by Rodney Long, Trade Promotion Series No. 5 (Washington, D.C., 1925), p. 57. For a general assessment of these maneuvers see Yeager, "Honduran Foreign Debt," 255-262, and Kenneth V. Finney, "Washington S. Valentine and the Honduras Interoceanic Railroad," (forthcoming, 1978?).

[22] Alfred W. Moe to Loomis, Desp. 84, February 24, 1904, U.S. National Archives, Consular Despatches, Tegucigalpa; Bondholder *Report No. 30 (1902-1903)*, pp. 189, 198, 230; Yeager, "Honduran Foreign Debt," 258-259.

[23] Lucas Paredes, Drama política de Honduras (Mexico, 1958), 155-165; Finney,

"Honduras Interoceanic Railroad," 14; Alger to Loomis, Desp. 58, March 28, 1903, U.S. National Archives, Consular Despatches, Puerto Cortés.

[24] Bondholder *Report No. 30 (1902-1903)*, 200.

[25] John Hay to Leslie Coombs, Desp. 49, June 19, 1903, U.S. National Archives, Diplomatic Instructions to Central America, XX; Coombs to Hay, Desp. 80, July 10, 1903, *ibid.*, Despatches from Ministers, Central America, XLIX; Finney, "Honduras Interoceanic Railroad," pp. 15-16.

[26] Angel Ugarte, *Memorandum sobre los empréstitos de Honduras* (Tegucigalpa, 1904); Yeager, "Honduran Foreign Debt," 256-263; Finney, "Honduras Interoceanic Railroad," 15-16.

[27] José Maria Moncada, *Cosas de Centro América* (Madrid, 1908), Hermann B. Deutsche, *The Incredible Yanqui; The Career of Lee Christmas* (London, 1931).

[28] Partial accounts—often written by parties with vested interests—can be found in such sources as Juan E. Paredes, *La contrata Morgan, sus antecedentes* (New Orleans, 1911) and Nestor Colindrez Zúñiga, *Voto razonado sobre el emprestito Paredes-Knox* (Tegucigalpa, 1911), but the clearest account is to be found in Yeager, "Honduran Foreign Debt," 263-280.

[29] Brand, "Honduras to 1913," 177-185; Yeager, "Honduran Foreign Debt," 281-291; Deutsche, *Lee Christmas.*

[30] Abraham F. Lowenthal, "United States Policy Toward Latin America: 'Liberal,' 'Radical,' and 'Bureaucratic' Perspectives," *Latin American Research Review* 8 (Fall, 1973), 3-26; Samuel Baily, *The United States and the Development of South America* (New York, 1976), pp. 9-12.

[31] Jacques Ellul, *The Technological Society* (New York, 1964), p. 3.

[32] Victor Ferkiss, *Technological Man* (New York, 1969); A. J. Mishan, *Technology and Growth. The Price We Pay* (London, 1970).

[33] Lewis Mumford makes the best case for this contrast in "Authorization and Democratic Technics," *Technology and Culture* (New York, 1962), 50-59. For his definitive treatment see his two volume *The Myth of the Machine* (New York, 1967).

[34] *La Nación*, March 7, 1888, p. 3; *Honduras Progress*, May 10, 1888, p. 1; June 7, 1888, pp. 1-2.

[35] Guillermo A. O'Donnell, *Modernization and Bureaucratic-Authoritarianism* (Berkeley: University of California Press), 1975; p. 81.

[36] Sanso, *Policarpo Bonilla*, 53; *La República*, July 4, 1891, pp. 1-3.

[37] John McDermott, "Technology: The Opiate of the Intellectuals," *New York Review of Books* (July 31, 1969), 25-37, develops this concept. The idea needs much further dissemination than it has so far received.

[38] The conceptual significance of Descartes' vortex theory (Cartesian splinter) is discussed in Piero V. Mini, *Philosophy and Economics* (Gainesville, 1974), pp. 18-19.

# DIPLOMATIC DULLARD: THE CAREER OF THOMAS SUMTER, JR. AND DIPLOMATIC RELATIONS OF THE UNITED STATES WITH THE PORTUGUESE COURT IN BRAZIL, 1809-1821

By Phil Brian Johnson

"Mr. Madison has spoiled a. . .cotton planter and only made a clumsy courtier of me." — Thomas Sumter, Jr.

On the morning of November 29, 1807, an exhausted French army commanded by Marshal Andoche Junot marched into Lisbon and secured Portugal for Bonaparte's Continental System. Only hours previous a reluctant Dom João de Braganza, the Prince Regent of Portugal, had boarded the *Principe Real* and set sail for Brazil which, finding itself at the center of the Portuguese Empire, was to play temporary host to its dispossessed sovereign for the next fourteen years. The United States welcomed the fugitive Court to "our Western Hemisphere" and immediately appointed a Minister Plenipotentiary to the Portuguese Court in Brazil. The new envoy was instructed to negotiate a commercial treaty and collect all information pertinent to the commerce between the two countries, submit any intelligence relative to the growing revolutionary movements throughout Latin America, explain the position of the United States on neutral rights, and finally, to promote an amicable relationship between the Braganza government and the United States.[1]

Thomas Sumter, Jr. was the man selected by the Department of State for its first major diplomatic appointment to Latin America. He was a dismal choice, inept, contentious, boorish, barely literate, and only mildly interested in the post. The Minister's shortcomings were not unknown to his superiors. He had served briefly, in 1802, as secretary of legation in Paris. But after only a few weeks in this position he began showering Minister Robert Livingston with a variety of complaints: he was required to work too hard, his office was "scarcely habitable", Livingston's personal servants neglected to tend his fire and sweep his room, and he couldn't be bothered with keeping the Legation office open regularly to the public. In a snit, he quit.[2] With his French bride in tow, Sumter left for London where he was employed for a few months as private secretary to Minister James Monroe. Then, in the fall of 1803, the couple returned to South Carolina and Sumter resumed the occupa-

tion of gentleman planter, with disastrous results. During a five year stewardship he very nearly drove his father's cotton plantation into the ground. In order to get Sumter off the land before the family was ruined, his revolutionary war hero father, General Thomas Sumter, used his influence within the Jeffersonian Republican party to secure a diplomatic post for his son. Brazil was it.

Minister Sumter's mission to Brazil was not particularly successful. This was due to a number of factors which will be examined in this paper, not the least of which was Sumter's bumptious and quarrelsome nature. He argued with everybody—other members of the diplomatic community, his American subordinates, and on one occasion even with members of the Braganza family with whom he engaged in a public feud over a matter of court etiquette. When the Braganzas appeared on the streets it was customary for people to remove their headgear and for those on horseback to dismount. On several occasions when the less than toothsome Princess Carlota was being driven through the city in her carriage the American minister refused to get down from his horse. Considering Sumter's behavior to be belligerent and disrespectful, the Princess ordered her guards to forcibly detach Sumter from his perch. Sumter responded by drawing his pistols and threatening to fire if touched. Shortly thereafter Prince João tactfully issued a decree allowing foreign diplomats to remain on their horses in the royal presence.[3]

One cannot help but wonder why Washington would appoint—and retain for ten years—such an incompetent individual. It would certainly belie the importance that was officially attached to the mission, and it could even be interpreted as a reflection of the United States' real disregard and lack of economic interest in the soon to become Kingdom of Brazil.

Minister Sumter spent a great deal of time during the first two years of his residence in Rio de Janeiro following Secretary of State Robert Smith's instruction to secure a commercial agreement with the Portuguese Court in Brazil. On several occasions when he approached Minister of Foreign Affairs Rodrigo de Souza e Coutinho, the Conde de Linhares, on the subject of a trade treaty Sumter strongly emphasized the benefits that would accrue to Brazil if the United States were to provide an increased market for Brazilian sugar and coffee. But the Portuguese ignored Sumter's blandishments and continued to refuse to negotiate a treaty or even to grant to the United States the status of most favored nation—the latter having been promised verbally to Consul Henry Hill in 1808. Sumter blamed his lack of success in acquiring commercial concessions from the Portuguese on a lingering suspicion that he and the country which he represented favored French projects for promoting rebellion throughout Latin America, and also on the fact that he had been unable to give the negotiations with the Court his full

attention due to the time and energy expended on quarrels with his subordinates.[4]

During the War of 1812, commercial negotiations between the two countries were more or less suspended as a result of the controversies which arose over Luso-Brazilian violations of neutrality (although it is interesting to note that United States' trade with Portugal itself increased markedly throughout the war years). Following the war it was decided to conduct any future negotiations in Washington. The Department of State was cognizant of the Court's obvious reluctance to grant any commercial privileges to the United States and realized that Sumter—after eight years—was incapable of reaching an agreement with the Portuguese.[5]

Sumter had further been instructed to furnish the Department of State with information on Brazil's commercial resources and potentialities, which was perceived as a necessary prerequisite to the negotiation of a treaty between the two powers. This he also failed to do. In 1819, Secretary of State John Quincy Adams informed Sumter's successor to Brazil, John Graham, that the

> information possessed at this Department is so slight and imperfect, that it is not possible to found upon it any precise instructions other than that of requesting your vigilant and unremitting attention to the object of collecting, digesting, and reporting, such facts as may prove useful to the public service and tend to facilitate the removal of inequalities injurious to the Commerce of the United States. . . .[6]

This negligence is certainly an adverse reflection on Sumter's ability and interest. It is also indicative of his disinclination to cooperate with and utilize the capabilities of consular officials. But another impression becomes equally clear: perhaps the United States was not overly anxious to conclude a treaty with Brazil, as is evidenced by the Department of State's haphazard correspondence with Sumter in which commercial matters were only infrequently mentioned. Moreover, at this time the understaffed and overworked Department of State was burdened with European concerns far more pressing than the possibility of commercial relations with an as yet unproven market, and with a country that had proven to be less a friend than initially had been supposed. Furthermore, any satisfactory commercial arrangement between the United States and the Portuguese Court was rendered virtually impossible by the diplomatic and commercial ascendancy of the English in Brazil.

Minister Sumter was also directed to furnish the Department of State with intelligence relative to the growing revolutionary movements throughout South America. This he did do. Sumter included in his dispatches lengthy statements detailing the activities of revolutionaries in Buenos Aires, Chile, and Peru. He gathered most of his information from United States' special agents who visited the troubled regions,

ship's officers, merchants, and from newspaper accounts and broadsides. In general, Sumter's dispatches were poorly written, confusing, and with regard to his information on South America, contained few evaluative judgments. Beyond a curt acknowledgement of their receipt, the Department of State took little notice of Sumter's news gathering; in the instructions issued to special agents and other United States officials bound for South America, Sumter's reportage was virtually ignored.

Neutral rights was the single most controversial issue which occupied most of Sumter's efforts and which strained relations between the United States and the Portuguese Court almost to the breaking point. Throughout the War of 1812, the United States criticized the Braganza government for its failure to maintain neutrality and the aid which the Court extended to Great Britain. In the years immediately following the war, however, Portugal rightly charged the United States with ignoring its responsibilities as a neutral by not curbing the privateers which were outfitted in American ports, and which, under the colors of the Uruguayan rebel, General José Artigas, attacked the shipping of Portugal.

The War of 1812 was a minor battleground in the larger contest of the Napoleonic Wars in which the interests of Portugal and the Brazilian colony were tightly joined with those of England. The Peninsular phase of the European war was being fought largely by the armies and navy of England; if Prince João and his homesick consort, Carlota, ever hoped to reoccupy their royal residence in Lisbon, it would be thanks to the British force of arms which brought about the fall of France. By declaring war on Great Britain the United States had, for all intents, allied itself with France and, in the opinion of the Court, become nothing more than an "instrument of France engaged by fear of her in a war which would soon be abandoned from weakness and disunion."[7]

Quite naturally, then, Prince João and the majority of his ministers actively favored the cause of Great Britain in the War of 1812, in sharp contrast to their hostility towards the United States. Nor had Sumter done anything to counteract this sentiment. Instead of pursuing amicable relations between the two countries, he had, in fact, promoted the opposite effect. Portugal's favorable attitude towards Great Britain was all but guaranteed by the Strangford Treaty, the second of three treaties signed in 1810. By the terms of this treaty, the two powers agreed to defend each other in the event of hostile attack and to provide for mutual defense. Moreover, it was stipulated that an unlimited number of British warships might avail themselves of Brazil's ports, and that when these vessels were employed for the "benefit and protection" of either party, provisions would be provided at no charge.[8]

In view of these considerations the only alternatives available to the Rio government were belligerency or a policy of quasi-neutrality, either of which would be advantageous to the Portuguese Empire and its

British ally, and offensive only to the poorly represented and commercially insignificant republic of the north.

The Braganza government briefly considered declaring war on the United States and entering the conflict on the side of its ally, England. This possibility was demonstrated several days after news of the war reached Rio, when João presented the British with a corvette, the *Benjamin,* which was briefly employed as an armed cruiser in Brazilian waters. Prince João decided against belligerency,however, due not to the efforts of Sumter, but to the pressure exerted by Lord Strangford, who "in a most decided manner" urged the Portuguese to declare their neutrality, which the Court did on September 29, 1812.[9]

Before examining specific instances whereby Portugal violated her neutrality, it is necessary to understand that, although at this time there was no universally recognized international agreement regarding the rights and obligations of neutrals, there were certain elemental standards of conduct which a neutral nation was expected to observe. Presumably, a neutral would abstain from supplying belligerents with the tools of war in the form of ships, naval stores, munitions, and armed forces. Neutrals were bound to prevent hostilities in their ports and territorial waters, and to insure that their territory was not used as a base for belligerent expeditions for for the recruiting of soldiers and sailors. Although a neutral nation could grant asylum or temporary refuge to a belligerent warship, prizes could not be disposed of in neutral ports nor could an armed belligerent vessel be allowed to remain in a neutral harbor indefinitely. Generally, a three-day maximum was considered acceptable to most nations. If certain provisions of the Strangford Treaty had been enforced, these rules would have been nullified. Moreover, for several years previous to the treaty and the outbreak of the War of 1812, Portugal's navy and troops had been fighting beside the English in Europe. Therefore, the Portuguese declaration of neutrality, limited almost exclusively to prohibitions forbidding the disposition of prizes in her ports, becomes understandable and even sensible.

It is not surprising, then, that Portugal violated the rules of neutral conduct, thereby assuring a deterioration in relations with the United States. In order to arrive at some conclusions regarding the nature and effect of Portugal's un-neutral conduct, it is necessary to examine a few of the incidents which so agitated Sumter and the United States.

Portugal blatantly disregarded its neutral status and favored the British cause in the matter of the impressment of American citizens, for decades a preeminent issue in American foreign affairs. Throughout the war it became the practice of shorthanded British warships operating in Brazilian waters to dispatch press gangs into the cities to gather up needed crew members. On one occasion a British admiral, with the full cooperation of friendly Portuguese officials, seized four American citizens being detained in a Brazilian prison and impressed them into the

service of England. The Portuguese Ministry of Foreign Affairs declined to press any complaints on behalf of the American prisoners. Nor did the Ministry make any attempt to seek redress from the British at any time during the spring of 1813 when a total of fourteen United States nationals were taken forcibly on board British men of war.[10] Despite his frequent and oftimes bitter complaints, Sumter was unable to force the Portuguese to curb the British practice of impressment, which he regarded as indefensible: "It is carrying the war against the United States into the Capitol of a neutral Country, for the purpose of seizing Americans to make them fight against their government—What an example to set before the world. . . ?"[11]

Added to these outright violations of naval neutrality was the overt aid granted England in the form of armed Portuguese convoys for British merchantmen. Barely six months after the commencement of the war, Captain Thomas Boyle of the *Comet,* an American privateer cruising off the Brazilian coast, reported an encounter with three heavily laden British merchant vessels which were being convoyed by a Portuguese man-of-war of thirty-two guns. The *Comet* gave chase to the four ships, and upon overtaking the Portuguese warship, the latter requested a conference with the American commander. Captain Boyle was informed that the English merchantmen were under the protection of the Portuguese brig. Boyle ignored the threat and the two ships engaged in battle. The faster, more maneuverable *Comet* succeeded in damaging and driving off the Portuguese brig, but could not prevent it from herding two of the damaged Britishers into safe "neutral" waters.[12]

In a variety of other ways Portugal violated the spirit of neutrality and displayed official favoritism toward Great Britain and antipathy for the United States. For example, officials of the province of Bahía compromised Portugal's neutrality by extending excessive protection to the specie-carrying *Bonne Cityonne,* a British brig of twenty-eight guns. The *Bonne Cityonne* was given permission to remain in the harbor of Bahía for as long as the *Hornet,* under Captain Lawrence, cruised outside territorial waters in wait for its prey. Despite protests by Consul Hill and several defiant challenges delivered to the British commander by Lawrence, the *Bonne Cityonne* refused to meet the *Hornet* "beyond the neutral limits and the protection of Brazilian guns." The commander of the small American force, William Bainbridge, advised Lawrence not to rely upon the neutral protection of the port of Bahía in the event of the arrival of a superior British force, which would likely "possess sufficient influence to capture you even in port."[13]

It must be concluded that Portugal, for understandable reasons of national interest, failed to uphold its neutrality in the face of British aggression. However, neutrality is a two-way street: not only must it be enforced by the neutral nation, it must be respected by the belligerent powers. Great Britain was notoriously lax in this respect. But, in truth,

during the War of 1812 the United States was not altogether blameless.

Although the United States generally respected the neutrality of all nations, there were instances during the War of 1812 when the champion of neutral rights blatantly disregarded Portugal's neutrality. On several occasions American privateers attacked and looted unarmed Portuguese merchant vessels. In November 1812, the *Revenge* detained the *Triumpho do Mar,* bound from Lisbon to New York, and removed the cargo. In the same year a Brazilian schooner out of Pará was similarly treated. In these and other cases Washington disclaimed any responsibility and advised Joseph Rademaker, the Portuguese chargé in the United States, to seek redress through due process in the courts of the land.[14]

More serious than the isolated attacks by privateers, was the rumor that American ships had attacked Sierra Leone and inflicted heavy damage. No evidence was presented which proved or disproved the accusation. However, the charge circulated among the inhabitants and officials of Rio, and was trumpeted about by those individuals who wanted to believe it by virtue of their dislike of Sumter, antipathy towards the United States, and sympathy for Great Britain.[15]

Illegal recruiting procedures practiced by officials of the United States was another source of irritation between the two countries. In February, 1813, José Bernardes, a Portuguese sailor, was enticed into enlisting in a certain Colonel Winder's infantry regiment by "the glittering show of money" and a prodigious quantity of rum. Despite Portuguese protestations, the sailor was kept closely confined in a Rendezvous House in Philadelphia, and then, with "woeful lamentation," marched off to Baltimore. Antonio João de Feitas was also cajoled or forced into the American service, even though the recruiting party was knowledgeable of his nationality and the contract which bound him to the Portuguese merchant marine.[16]

The Portuguese Court was considerably less disturbed over the violations of neutrality by the United States throughout the War of 1812 than it was over the disinclination of the American government during the Río de la Plata conflict to prevent American privateers from cruising against the commerce of Portugal and the subsequent refusal to make reparations. This reluctance on the part of the Madison administration contributed greatly to a feeling of ill-will between the two countries which persisted from some years after the end of Sumter's mission.

In 1816 hostilities erupted anew in the Río de la Plata basin. The present conflict, which eventually resulted in the establishment of the independent state of Uruguay in 1828, was but a continuation of the centuries old rivalry between Spain and Portugal for possession of the strategic Banda Oriental. This rivalry was intensified with the transfer of the Portuguese Court to Brazil. Until 1815, however, English intervention had prevented Prince João from securing control over the Banda Oriental. But in that year Lord Stangford was withdrawn from

Rio, which left the Braganza government momentarily free from English domination to pursue its expansionist goals. However, by 1815 there were two new claimants to the region: the revolutionary government of Buenos Aires and the party of José Artigas, a native of the Banda Oriental who was determined to make the province independent. In 1816 Brazil confronted Artigas with a land and water siege. Having no naval force at his disposal (and no port for that matter). Artigas reacted by commissioning privateers to prey on Portuguese commerce. The majority of these commissions were granted to Americans, notably residents of Baltimore.[17]

When the Portuguese minister to Washington, José Corréa da Serra, learned that citizens of Baltimore were outfitting privateers, he pleaded with the government of the United States to remain neutral and to prevent the Baltimorean privateers from committing armed outrages against the shipping of Portugal. It was to no avail, for as early as December, 1816, an American privateer flying the colors of Artigas captured a Portuguese vessel off the coast of Madeira. Several months later the *Buenos Ayres Patriot*, a Baltimore privateer commanded by one J. W. Stephens, captured and ransacked the *Marquês of Pombal* and the *St. John Protector*. On October 18, 1818, Corrêa da Serra complained that another Portuguese ship, the brig *João Sexto*, had been captured by the American privateer *Fortuna* and was presently being fitted out in Baltimore to attack Portuguese commerce. In December of the same year the Portuguese minister informed Washington of "depradations and unwarrantable outrages" which had been committed off the Brazilian coast by another Baltimore privateer, the *Vicuna* (alias the General Artigas).

In 1820 Minister Corrêa da Serra estimated that the activities of American privateers had cost his country approximately sixty-five vessels and eighty-one million dollars. In addition to the plundering of ships in a time of peace between the two countries, there were, besides, "violations of territory by landing and plundering ashore, with shocking circumstances." Corrêa da Serra admitted that the American government did not officially countenance what amounted to piracy; nevertheless, these piratical acts were being committed by citizens of the United States who had open recourse to the port of Baltimore where the populace openly flaunted their support of Artigas by displaying "badges" in their hats. Corrêa da Serra compared the privateers and their supporters in Baltimore to a "wide extended and powerful tribe of Infidels worse still than those of North Africa," for at least the North African Infidels made prizes under the laws of their countries and only after a declaration of war had been issued. But the American "Infidels" attacked the commerce of a nation "friendly to the United States, against the will of the government of the United States, and in spite of the laws of the United States."[18]

Washington was not entirely heedless of Portugal's plight. On March 3, 1817, Congress passed an act which clarified and strengthened United States' neutrality laws. This act prohibited privateers from cruising under a commission granted by "any colony, district, or people," which was an obvious reference to the insurgent governments of Latin America. The neutrality laws of the United States were further reinforced by legislation in 1819 and 1820. But the mere passage of laws was not sufficient to impose neutrality on the citizens of the country. This was due to a number of factors, "chief of which was the connivance at violations on the part of the public officials of Baltimore, the privateers' haven, where the federal judges, the collector of customs, the postmaster, the private attorneys, and the populace were culpable either because of selfish reasons or incompetence."[19] Once neutrality legislation had been passed, President Madison professed to have done everything he could to protect Portugal from the Baltimore privateers. However, the disinclination of the United States to forcibly curb the privateers caused the Portuguese Court to disregard many American claims resulting from the War of 1812. Thus, in the opinion of Lawrence Hill, a noted historian of United States-Brazilian diplomatic relations, the neutrality question served in part to bring the two countries "almost to the verge of actual hostility."[20]

Relations between the United States and the Kingdom of Brazil were most seriously impaired and Minister Sumter, Jr.'s usefulness all but ended by Washington's favorable attitude towards the rebellion which broke out in 1817 in the northern province of Pernambuco, long a center of republican-separatist intrigue. The Pernambucan rebels hoped to establish a republic independent of the Brazilian monarchy. Their plans were dependent upon the Court being too mired in the Rio de la Plata adventure to do more than protest, and especially upon assistance and perhaps even recognition from the United States. To secure the latter the Provisional Government of Pernambuco dispatched to Washington one Antonio Gonçalves da Cruz, who was instructed to present the Pernambucan cause, obtain diplomatic recognition of the new Republic, and secure credit for the purchase of war materiel. In return for these favors Gonçalves da Cruz was authorized to offer a generous commercial agreement which was thought would appeal to the spirit of the American people, all of whom, he believed, were ruled by sentiments of "republicanism and commercialism."

In Philadelphia Gonçalves da Cruz met with Caesar Rodney, the Department of State's unofficial representative, and the President of the Bank of the United States, William Jones. In the name of Secretary of State Richard Rush, Rodney agreed to the following concessions: although the United States would not recognize the Republic of Pernambuco at that time, Pernambucan merchant ships and privateers (but not prizes) could enter American ports; the United States would not respect

the Portuguese Court's "nominal blockage" of the Pernambucan coast; and finally, the United States would recognize the belligerent status of the Republic of Pernambuco and would therefore not impede the purchase and shipment of war materiel.

Secretary of State Rush conferred personally with Gonçalves da Cruz in Washington on June 16, 1817. The Pernambucan representative was told that "precise" recognition of his government was still not possible, but that the United States would do what it could to assist his cause. Rush then asked Gonçalves da Cruz to establish his formal residence in any other city but Washington, presumably to prevent further deterioration in relations with King João's government. In response to Gonçalves da Cruz' suggestion that the United States maintain a naval force off the Pernambucan coast in order to protect American commerce, the Secretary gave the Pernambucan the impression that the United States would act forcibly if circumstances required it; and impression that led Gonçalves da Cruz to report to his superiors that there was a real possibility of a confrontation between the United States and the Portuguese Court which would all but insure the independence of the Republic.

In Pernambuco itself the United States was represented by Consul Joseph Ray, whose appointment was secured upon the recommendation of Gonçalves da Cruz. Consul Ray openly involved himself in the insurrection. He actively plotted with the rebels, and after the revolution was suppressed, harbored some of the leaders of the movement in his house until they were forcibly taken by government authorities. Although Ray's conduct was condemned by the Portuguese as "criminal to the highest point," he was not imprisoned out of deference to the United States.[21]

As the preceding has demonstrated, Minister Sumter was totally incapable of fulfiling a good understanding and a harmonious relationship between the United States and the Braganza government. This was due to a number of circumstances, most importantly the difficulties engendered by the mutual disregard of the rules of neutrality. Admittedly, there was little that Sumter could have done about this or some other problems. But he certainly did little to alleviate the uncertain relations between the two countries by his aforementioned continual bickering with fellow American officials and with members of the Luso-Brazilian government, whose sensitivities he ruffled on more than one occasion. In a pointed criticism of Sumter's conduct, Secretary of State John Quincy Adams observed that

> Our relations with Portugal and Brazil have not been well cultivated. Their importance has not been duly estimated. The Minister, who has been there these ten years, was not a fortunate choice. His own temper is not happy. He has been repeatedly involved in quarrels of personal punctilio, even with members

of the royal family. He is excessively argumentative, and spins out everything into endless discussions without ever bringing anything to a close.[22]

A less impartial observer, Henry Hill, also berated Sumter for his lack of civility in dealings with the Portuguese government. In Hill's opinion, Sumter had been occasionally treated with courtesy only because of the Court's "respect of the government of the United States, the fear of it, and the sincere desire to have its friendship—but not from any respect or fear of the minister—[unless perhaps] originating from his [long] and awful letters, which frequently have never been read, and have often remained unanswered."[23]

Minister Sumter's failure to establish some rapport with the Portuguese Court, and to accomplish any of the objectives of his mission, caused Secretary of State Adams to note that "the state of our affairs with Portuguese Government at Rio de Janeiro has been entangled in such a snarl of mismanagement and neglect that [nothing can be done] without a review of our political and commercial relations, both with Brazil and Portugal, for the last ten years."[24] Sumter himself recognized the futility of his continued presence in Rio when he admitted that he felt it advisable to "abstain as much as possible, and sometimes altogether, from undertaking to propose anything to the Portuguese government, in which either the interests or reputation of the United States are concerned,. . .lest I should afford it new occasions for treating them with neglect and disrespect."[25] Indeed, by the year 1818, Sumter's influence with the Portuguese Court had deteriorated to such an extent that when he routinely submitted several consular commissions to the Portuguese government for approval, the matter was completely ignored. Obviously, by the 1818 Sumter was unwelcome in Brazil. In August of that year he was recalled, which was not altogether contrary to the Minister's wishes. As early as 1816 he had requested that he be relieved of his position.

At the time of Sumter's departure from Brazil in mid 1819, relations between the United States and the Portuguese Court, in the opinion of John Quincy Adams, were marked with "so much ill blood. . .that it. . . festered into all but open hostility." In order to reestablish harmony and to renew commercial negotiations Adams secured the appointment of John Graham—a member of a previous Presidential Commission to South America—as minister to Brazil.[26] Graham set out for his post in late summer of 1819 with the conviction that his efforts towards conciliation would be useless. He was kept waiting several months after his arrival in Rio before being received at Court. At length he became so discouraged with the futility of his efforts that he recommended that the United States mission in Brazil be reduced to the rank of chargé. Graham returned to the United States after eight months in Rio.[27]

Shortly thereafter, in April, 1821, King João yielded to the demands of the Portuguese Courts and returned to Portugal, leaving his son, Dom

Pedro, as regent of the Kingdom of Brazil. Graham's successor, chargé John Appleton, followed the Portuguese monarch to Lisbon, and unresolved disputes over neutral obligations were transferred to the realm of strictly Portuguese-American affairs. Thus ended thirteen years of unhappy relations between the United States and the Portuguese Court in Brazil.

* * *

In tracing the relations of the United States with the Portuguese Court in Brazil, it must be concluded that the United States failed to cultivate harmonious relations with the Braganza government. This circumstance was due in large part to the inexperience, incompetence, and lack of tact of Thomas Sumter, Jr. But the very fact that the Department of State knowingly appointed an individual so unqualified suggests that the United States was not overly concerned with Brazil, and that the post in Rio was regarded as unimportant, even expendable. This seeming indifference was further evidenced both by the Department of State's brief and infrequent communications with the Minister, and by the fact that, in the years following his arrival in Rio, the matter of a commercial treaty was treated with decreasing importance and officially little was done to promote trade between the two countries. Moreover, even though by 1816 Washington was fully aware that Sumter's usefulness in Brazil had ended, three years passed before he was finally replaced.

In the larger Latin American context, the neglectful attitude of the United States towards Brazil was not exceptional. During the early decades of the nineteenth century, the United States was diplomatically and commercially indifferent towards the whole of this region. This posture is explained by the fact that domestic and European affairs were regarded as the major concerns of the United States, while Spain's colonies and Brazil were relegated to a position of tertiary importance. Although Latin America was generally viewed as a repository of enormous riches and as a vast future market for American goods, little was done to develop trade with the region; in fact, during the first quarter of the nineteenth century, this trade never exceeded ten to twelve per cent of our total foreign commerce. During the Napoleonic Wars the United States failed to increase its trade with Latin America and challenge its chief rival, England. This opportunity was lost because of restrictions on foreign trade in the United States—the most notable being Jefferson's Embargo—and our involvement in the War of 1812. Then too, the possibilities for development within the United States were tremendous, and this is where most excess capital was concentrated.

Popular sentiment in the United States favored aiding the Latin American countries in their struggle for independence. However, the official attitude, as expressed by Presidents Adams, Jefferson, and Madison, was one of neutrality, a view which arose from the opinion that the

United States stood to benefit very little by extending military aid and formal diplomatic recognition to Latin America. It should be remembered that during the Latin American Wars of Independence the United States was fully occupied in delicate negotiations with Spain for the acquisition of the Floridas, and to have appeared less than neutral towards Spain's rebellious colonies would have endangered these negotiations. It was not until the final exchange of ratifications of the Adams-Onís Treaty in 1821 that the United States could afford to take an active interest in Latin America and recognize its independence.

It is not surprising, then, that a man such as Thomas Sumter, Jr., (the first United States representative to Latin America with the rank of minister) was appointed to Brazil, or that the men who followed him were of the same low caliber. Nor is it surprising—in view of poor representation in Brazil, the lack of interest displayed by the United States, and the difficult issues which confronted the two countries—that the United States failed for decades to establish close relations with the Empire of Brazil which won its independence from Portugal in 1822.

## NOTES

[1] Secretary of State Robert Smith to Sumter, August 1, 1809, Diplomatic Instructions, All Countries, VII, National Archives. The Department of State manuscripts cited herein are housed in the National Archives, Washington, D.C., and are available on microfilm: Notes from the Portuguese Legation; Notes to Foreign Legations; Diplomatic Instructions, All Countries; Despatches From United States Ministers to Brazil; and Instructions to Consuls, Despatches From United States Consuls in Rio de Janeiro, unavailable on microfilm, were consulted at the National Archives.

[2] Robert Livingston to Thomas Jefferson, October 28, 1802, Jefferson Papers, Vol. CXXVII (Folios 21900-21902), Library of Congress; also Anne King Gregorie, *Thomas Sumter* (Columbia, S.C.: R. L. Bryan Company, 1931), p. 248.

[3] Accounts of this incident may be found in Sumter to Secretary of State James Monroe, September 29, 1815, Despatches From United States Ministers to Brazil, I; also, Lawrence Hill, *Diplomatic Relations Between the United States and Brazil* (Durham, N.C.: Duke University Press, 1932), pp. 7-8.

[4] Sumter to Smith, September 3, 1810, January 11, 1811; and Sumter to Monroe, September 24, 1812, Despatches From United States Ministers to Brazil, I.

[5] Monroe to Sumter, June 10, 1816, Diplomatic Instructions, All Countries, VIII.

[6] Secretary of State John Quincy Adams to John Graham, April 24, 1819, *ibid.*

[7] William Spence Robertson, *France and Latin American Independence* (Baltimore: John Hopkins Press, 1939), p. 22; also, Sumter to Monroe, October 1, 1812, Despatches From United States Ministers to Brazil, I.

[8] Great Britain, Foreign Office, *British and Foreign State Papers* (London: James Ridgway and Sons, 1841-1956), I, 543-57.

[9] Sumter to Monroe, October 1, 1812, Despatches From United States Ministers to Brazil, I. These note an intercepted letter from Lord Strangford to Lord Castlereagh, September 30, 1812.

[10] Sumter to the Conde de Linhares, January 3, 1812; Sumter to the Conde de

Galves May 17 and 13, 1813; the Conde de Galves to Sumter, May 22, 1813, Brasil, Ministério das Relacões Exteriores, Arquivo Histórico do Itamaratí (hereafter cited as MRE/AHdI), coleções Especias (III): Casos com Estrangeiros, Estados Unidos—1812-1813, Pasta 10, Lata 186, maço 1. See also, Sumter to Monroe, May 9 and February 22, 1813, Despatches From United States Ministers to Brazil, I.

[11] Sumter to the Conde de Aguiar, January 15, 1813, Despatches From United States Ministers to Brazil, I.

[12] James Barnes, *Naval Actions of the War of 1812* (New York: Harper and Brothers Publishers, 1896), pp. 239-240.

[13] Barnes, *Naval Actions*, p. 113. See also, Albert Gleaves, *James Gleaves, Commander of the Chesapeake* (New York: G. P. Putnam's Sons, 1904), pp. 115-116; and H. A. S. Dearborn, *The Life of William Bainbridge, Esq., of the United States Navy*, James Barnes (ed.), (Princeton, New Jersey: Princeton University Press, 1931), p. 98.

[14] Rademaker to Monroe, March 27, 1813, Notes From the Portuguese Legation, I.

[15] Sumter to Monroe, February 22, 1813, Despatches From United States Ministers to Brazil, I.

[16] Rademaker to Monroe, March 27, 1813, Notes From the Portuguese Legation, I.

[17] See Hill, *Diplomatic Relations*, 16-19; John F. Cady, *Foreign Intervention in the Rio de la Plata, 1838-50* (Philadelphia: University of Pennsylvania Press, 1929), pp. 2-9; William R. Manning, "An Early Diplomatic Controversy Between the United States and Brazil," *Hispanic American Historical Review*, I (May, 1918), 126-128; and John Street, "Lord Strangford and the Rio de la Plata, 1808-1815," *Hispanic American Historical Review*, 33 (November, 1953), 477-510.

[18] Corrêa de Serra to Adams, March 8, October 15, December 11, 1818, and March 17 and December 23, 1819, Notes From the Portuguese Legation, I.

[19] Hill, Diplomatic Relations, 17; also, Monroe to Corrêa da Serra, December 27, 1816, March 14 and October 23, 1818, and April 22, 1819, Notes to Foreign Legations, II.

[20] Hill, *Diplomatic Relations*, 25.

[21] Instructions of the Provisional Government of Pernambuco to Antonio Gonçalves da Cruz, March 27, 1817; and Antonio Gonçalves da Cruz to the Provisional Government of Pernambuco, no date, MRE/AHdI, III coleções Especias (30); Documentação Anterior a 1822, Capitania de Pernambuco (Revolução de Pernambuco), Pasta 5, Lata 195, maço 5; see also, Corrêa da Serra to Secretaries of State Richard Rush and John Quincy Adams, May 13, 1817 and October 13, 1818, Notes From the Portuguese Legation, I; Rush to Corrêa da Serra, May 22, 24, and 28, 1817, Notes to Foreign Legations, II; Rush to Sumter, July 18, 1817 and August 27, 1818, Diplomatic Instructions, All Countries, VIII.

[22] Charles Francis Adams, *Memoirs of John Quincy Adams comprising portions of his Diary from 1795 to 1848* (Philadelphia: J. B. Lippincott and Co., 1874-1877), IV, 340.

[23] Sumter to Hill, November 4, 1818, Despatches From United States Consuls in Rio de Janeiro, Part 1, Vol. 1.

[24] Adams to Graham, April 24, 1819, Diplomatic Instructions, All Countries, VIII.

[25] Sumter to Hill, November 4, 1818, Despatches From United States Consuls in Rio de Janeiro, Part 1, Vol. I.

[26] Adams, *Memoirs of John Quincy Adams*, IV, 339; also, Joseph Agan, *The Diplomatic Relations of the United States and Brazil* (Paris: Jouve et Cie, Editeurs, 1926), p. 119.

[27] Agan, *Diplomatic Relations*, 120-122.

# THE PERSONNEL APPROACH TO UNITED STATES RELATIONS WITH CHILE, 1823-1850

By T. Ray Shurbutt

A nineteen gun salute heralded his arrival in Valparaiso, a twenty-two gun salvo accompanied his formal presentation of credentials in Santiago, and Supreme Director Ramón Freire offered him a personal honor guard and residence at Chilean governmental expense. Such pageantry and deference seemed to embarrass and overwhelm chargé d'affaires Heman Allen, who arrived to commence formal relations in April, 1824. With little understanding of his duties or knowledge of what to expect in Chile, chargé Allen like his successors soon discovered that he had to rely on his own resources and opinions in making decisions covering a whole spectrum of topics.[1] And our state department's negligent attitude toward Allen's repeated requests for definitive instructions on specific problems was certainly in glaring contrast to the importance the Chileans held for his position.

Allen's isolation is exemplified by the fact that he learned of Henry Clay's appointment as Secretary of State through a newspaper, not an official dispatch, even though Clay had already served for half a year.[2] Yet the best indication of the need for better communication is found in Allen's twenty-second dispatch written nineteen months after his glorious arrival in Santiago, stating that since he had not received "any communication from his government... [he was] unable to determine whether or not [his] conduct corresponded to its views, hoping however, that no essential variation [had] intervened."[3]

Allen's mission was not unique in this feeling of isolation. During this period each of the six chargés who followed Allen complained of identical sentiments of neglect. Samuel Larned's first substantive instructions reached him twenty-six months after his appointment, and these instructions merely informed him that he had been transferred to Lima.[4] In 1831, chargé John Hamm categorically stated "here I am—completely isolated—not a single American of intelligence and standing in the whole city—No one...can form any idea of the embarrassments [one] has constantly to encounter in all his transactions with [this] Government and people speaking nothing but a foreign language."[5] And a year later with still no news from Washington, Hamm complained, "Not a single letter, the President's messages, or a Newspaper!! Most Astonishing!! Do you imagine, my dear friend, that I am dead?"[6] In July, 1837, chargé Richard Pollard sarcastically complained of his need for news by stating, "By a stray paper which reached my hands...I saw that Mr. Van

Buren had been chosen by the people President of the United States."[7] John Pendleton candidly described his post as "the most remote position in the whole line of Diplomatic service."[8] While chargé William Crump was unwilling to openly complain or criticise the state department, he did mention that although our relations with Chile were in their twenty-third year the Santiago legation was still without an American flag.[9] And finally, Seth Barton—who was willing to criticise anyone or anything at any time—informed Secretary of State James Buchanan in April, 1848, that he had recently received several dispatches addressed to chargé Crump, dating from August, 1846, which had "crossed both oceans and rounded Cape Horn four of five times" before arriving at last in Valparaíso.[10]

Washington's neglect and lackadaisical attitude regarding these chargés' pleas for instructions becomes even more flagrant when one reviews the important decisions they were called upon to make. They negotiated and amended the commercial treaty with Chile, they sought the release of illegally seized U.S. merchant vessels, they were called upon to determine the American naval squadron's actions concerning military blockades, and they negotiated indemnity claims worth hundreds of thousands of dollars for U.S. citizens for property damages and seizures dating from Chile's independence struggle. And without any real aid from Washington, their own opinions and personalities frequently proved to be determinants in our relations with Chile on these and other matters.

The initial personality trait shown by chargé Allen was his feeling of superiority over Chilean officials. He constantly wrote of his disappointment over the lack of character and worthiness he found in Chile—"a rude and uneducated state, yet [requiring] nothing but the hand of civilization to entitle them to the proud appellation of freemen."[11] Certainly Allen considered himself this needed "hand of civilization," as he determined to advise everyone from the Supreme Director, to judges, to the congressional committee charged with drafting a new constitution in 1825.[12] In all fairness to Allen, however, some guiding hand must have seemed necessary, since during his first fourteen months in Santiago no fewer than five cabinet shuffles occurred.[13]

Yet Allen's criticism of the Chilean government appears mild when compared to his vitriolic condemnation of the Catholic Church's influence in Chile. Allen was surprised that the Church was maintained as the state religion, a position which he felt was untenable for a nation pretending to be a republic. Allen referred to the Church as "an internal enemy, [an] incubus which stifles growth."[14] And as for the priesthood, he disgustingly reported that in Santiago alone "there are no less than eight hundred of *these miserable beings*... and a great portion of time is devoted to *their* ridiculous ceremonies."[15]

The instability of the Chilean government meant that Allen made

no real progress on our citizens' claims cases he was charged with negotiating. The frustrations caused by his lack of success, coupled with lingering illnesses prompted him to move to Valparaíso during the last two years of his mission, 1825-1827. Interestingly, however, the legation secretary, Samuel Larned, remained in Santiago, and for all practical purposes it was he who carried out our diplomacy during this time. Larned was fluent in Spanish and was able to utilize his personal friendship with Chilean officials to achieve influence and goals Allen never could have dreamed. From 1825-1827, Secretary Larned by-passed Allen and sent dispatches directly to Washington, recommending changes in the approach concerning the claims cases and other matters. He considered Allen's voluminous interchange of notes with the Chilean foreign ministry as "tardy" and "ineffectual," and he advised a more personal approach including a separate convention in which Chile would at least recognize the legality of claims cases.[16]

Larned knew that Allen had asked to be replaced, so with this in mind it is easy to discern his motives in taking an active, though unofficial, part in diplomacy. To bolster his credentials in asking for Allen's job, Larned informed Secretary of State Clay that he had recently published two articles in the Santiago papers defending U.S. governmental and religious principles and institutions. These articles, "Observations in Reply," were written to refute two others, "Memoria Política" and "Abeja Chilena," by Manual Egaña, who condemned North American institutions. Larned said he felt obligated, as a patriot, to respond to Egaña, "finding that no one ventured or thought proper to come out in our defense."[17]

"Observations in Reply" was met with general praise by the leaders of the growing liberal factions throughout Chile and was then circulated in Buenos Aires, Peru, and Colombia. Gen. Francisco Pinto, Governor of Coquimbo and a close friend of Larned, had copies of the article distributed to all school boys so they could commit it to memory.[18] Larned's reputation continued to gain status, and in the summer of 1826, he was asked by José Ignácio Cienfuegos, then President of the Chilean Congress, to serve as an observer-member of the committee charged with framing a new constitution.[19] Larned was far more than an observer. He actually authored the "Constitutive Act" which Cienfuegos submitted to Congress, only to be defeated by the conservatives who held a Congressional majority.[20]

Another example of Larned's influence and reputation was evidenced through his personal appeal to the Chilean Supreme Court for a review of a lower court's decision which had condemned and confiscated the U.S. schooner *Chile* for smuggling tobacco into the port of Talcahuanco, in February, 1825. The crew of the *Chile* had unsuccessfully attempted to hide their personal rations of cigars and tobacco when they entered the port to buy supplies, though they made no effort to sell these mono-

poly items once ashore. The District Court of Concepción had harshly decreed that not only was the contraband tobacço to be seized, but the court had also ordered the confiscation of the ship and its cargo of five thousand seal skins. Larned's personal appeal to the Supreme Court judges "who [were] all [his] personal friends," was effective and the ship and cargo were restored.[21]

When Allen took homeward passage on board the French merchantman *Charles Adolphus*, on September 25, 1827, Larned could finally begin functioning in an official capacity.[22] He spent the next two years in intensive negotiations for the establishment of a commercial treaty. Neither Allen nor Larned had been instructed to initiate these discussions, but after Foreign Minister Carlos Rodriquez broached the issue, Larned proceeded with all deliberate haste.[23] On several occasions during 1826, minister Rodriquez had sought Larned's advice concerning Chile's commercial ventures, and in return for this aid Larned had been assured that U.S. commerce would be granted the status of "most favored nation" when the two countries formalized a trade agreement.[24] Larned considered these assurances of utmost importance since Mexico, Buenos Aires, and Peru were conferring with Chile for the establishment of treaties which contained stipulations granting trade privileges to Spanish American nations.[25] Also, Larned hoped to use his influence to gain Chile's acceptance of a special convention attached to our treaty through which Chile would officially recognize the legality of U.S. claims cases. This convention would not, however, be viewed as a necessity.[26]

Although Rodriquez decided that formal negotiations should be conducted in Washington, not Santiago, Larned forwarded to Secretary Clay a completed proposal of thirty-six articles which included blank spaces for signatures and dates. It should be noted that Larned's proposal also included the principle of "most favored nation" (Art. 2&3) and a special provision guaranteeing freedom of worship for the citizens of the two countries residing within each other's boundaries (Art. 15).[27]

On June 7, 1829, Larned received his first dispatches from Clay. But rather than granting him the extended negotiating powers he had requested, Larned was astonished to discover he had been transferred to Lima as our first chargé to Peru. While accepting his new post, he candidly informed Clay that he preferred to remain in Chile where his influence would enable him to render a more valuable service to his country.[28] Larned soon learned that Martin Van Buren was the new Secretary of State in the newly inaugurated Jackson administration, and so he immediately appealed to Van Buren for permission to remain in Chile. Swearing his loyalty to the new administration, Larned assured Van Buren that he had never affiliated with any other political party or even "made use of, on a single occasion, the electoral franchise."[29]

Both his reasoning and vows of political loyalty failed to modify

Van Buren's directive, and Larned officially took leave of the Chilean government on October 15, 1829.[30] During these last few months, Larned unsuccessfully tried to gain Chile's agreement to pay the indemnities sought in the *Macedonian, Warrior,* and *Garret* ships' claims cases. It is clear from this correspondence that Larned had become despondent and cynical over his transfer to Peru. His letters to his friend Rodriquez are laced with innuendos and loosely veiled threats of military action, since all other diplomatic avenues had failed to terminate these protracted cases. But why should Chile rush to resolve these claims when she knew that there was nothing to lose in waiting to treat with Larned's successor, whom they correctly reasoned would know little of these matters?[31] And apparently the American State Department felt no inclination to proceed with haste either. Chargé John Hamm was not appointed until May, 1830,[32] did not depart for his post until January, 1831,[33] and did not present his credentials in Santiago until May 26, 1831, nineteen months after Larned's departure.[34]

The two and a half year mission of John Hamm coincided with the beginning of political stability for Chile. The inauguration of Joaquín Prieto on September 18, 1831, witnessed the passage of the Chilean republic from infancy to adolescence, although certainly no real maturity was instantaneous. Hamm's efforts centered on two major subjects—claims cases (including the addition of the *Trusty, Franklin,* and *Good Return* claims) and his attempts to negotiate modifications to our pending commercial treaty. Hamm, like Larned, felt that the claims cases should be treated by affixing them to the commercial treaty in a special convention, and he repeatedly sought additional instructions on the subject. Of course, none came, and since the brilliant Andrés Bello was appointed as "Chilean Plenipotentiary" for these discussions, Hamm certainly needed all the help he could muster.[35] Their conferences made rapid progress, and Bello and Hamm signed a preliminary agreement on May 16, 1832. Article Two stated that Chile would grant the U.S. the status of "most favored nation," except where Spanish American countries were concerned. Hamm felt that this concession would be temporary and necessary in order to gain Chile's eventual acceptance of U.S. claims cases.[36]

The Chilean Congress ratified the treaty with several modifications in October, 1832, and Hamm forwarded it to Washington where review would be required before Hamm could agree to the changes. In this dispatch to Secretary of State Edward Livingston, Hamm emphasized that provisions such as Article Eleven, permitting Protestant burials in Catholic graveyards, should not be considered lightly. No, indeed, the Catholic hierarchy of that "bigoted country" had strongly opposed this concession, but enlightened thinkers "viewed [it]... as the entering-wedge for the attainment of other desirable objects of both civil and religious nature."[37] There was an obvious gratification for Hamm in this

"victory" over Catholicism, for in a private letter to a friend he states, "I found this *wild beast* in my road shortly after I started, and I was fully determined to meet and give him battle."[38]

Hamm waited thirteen months for instructions covering the Chilean modifications to the treaty. But when dispatches finally arrived, the treaty wasn't even mentioned. There was nothing more in these dispatches than a few forms, a request for an inventory of the legation's holdings, and a mild reprimand of Hamm for not using the correct size paper for his dispatches.[39] Washington's views on the treaty finally arrived in September, 1833, and Hamm spent the remaining two months of his mission conferring with Bello and gaining final approval from the Chilean Congress.[40] When Hamm set sail for America on board the *Lady Adams* on November 27, he was accompanied by Manuel Carvallo who had been sent to formalize the treaty and open a legation in Washington.[41]

Consistent with our State Department's procedures, there was a lapse of seventeen months between Hamm's departure and the arrival of our new chargé, Richard Pollard. Pollard's chief instructions were to continue pressing for a settlement in our claims cases and to attempt to amend the new commercial treaty so that U.S. commerce would gain equal status with Spanish American goods.[42] U.S. Minister Plenipotentiary to Madrid, John Van Ness, had succeeded in getting Spain to open talks with her former colonies seeking formal recognition, and Pollard was optimistic that Van Ness' assistance would pave the way for the attainment of his goals.[43] In his efforts to modify the treaty, Pollard declared that since Spain was no longer a common threat, the new Spanish American republics' preferential treatment was not really necessary. Then, too, Chile should not forget that our Monroe Doctrine underscored her safety and "said to all Europe stand aloof—thou shall not aid in replacing those manacles of slavery upon these heroic people who have broken them asunder."[44]

Pollard's logic and rhetoric were politely received, yet proved ineffectual. Besides, Chile could not occupy herself with such minor subjects when there was the growing threat of war surfacing on the horizon. Gen. Andrés Santa Crus's Bolivian Confederation had become increasingly anti-Chilean, and as war became imminent Pollard adopted the correct position of strict neutrality. Chile imposed an embargo on all neutral ships scheduled to leave her ports for Peru in August, 1836, and the U.S. merchantman *Garafilia* was detained for three weeks, suffering considerable damage to her perishable cargo. Pollard sought reparations under Article Five of our commercial treaty.[45] But it seemed that every new argument for reparations offered by Pollard was successfully countered by Foreign Minister Diego Portales. Then Pollard discovered that Bello was the real author of these scholarly replies, and an enraged Pollard felt he had been duped. He became convinced that Chile had

become anti-American, so he reciprocated by becoming anti-Bello, anti-Portales, and anti-Prieto to the point of actually hoping that a revolution would occur and cleanse Chile of her aristocratic and popish leaders.[46]

His not-so-diplomatic attitude manifested itself in a haughtily worded letter to Portales, which categorically accused Chile of precipitating the war, and he suggested that President Prieto should formally apologize for meddling in Peru's domestic affairs.[47] When Portales was assassinated in Valparaíso in June, 1837, during an attempted mutiny, Pollard committed the tactless *faux pas* of not sending a letter of condolence over the nation's loss.[48]

Chile was victorious in defeating Santa Cruz in April, 1839, and Prieto's conservative control of the country was greatly enhanced. Pollard expected U.S. prestige to grow, since it had remained neutral while English and French war ships had blatantly ignored Chile's blockading efforts along the Peuvian coast and escorted merchantmen through their inadequate patrols. Pollard's expectations were unfounded. At a banquet celebrating Chile's independence, attended by all Santiago's diplomatic corps, Pollard—ever on the watch for reasons to substantiate his growing paranoia—discovered that a British admiral was seated next to President Prieto, while he had been delegated to a lesser seating position. After suffering through the first course and being unable to abide this slight any longer, he curtly left his seat, walked to Prieto's table, and "turning indignantly went out of the room."[49] The banquet hosts offered their apologies, but *faux pas* Pollard never forgave them this slight against him and the honor of the U.S.[50]

From that point until the end of his mission in June, 1842, Pollard carried on voluminous correspondence with a special commission which Foreign Minister Manuel Renjifo appointed to resolve the intricacies of the *Macedonian* claim, amounting to $142,000. Pollard's tenacity achieved a compromise settlement at $104,000, but then he received instructions indicating that the *Macedonian's* owners were also seeking reparations of $70,400 from a second seizure of their ship.[51] Renjifo had been notified that Pollard's replacement, John Pendleton, would soon arrive in Santiago, so he felt no compulsion to seek a definitive solution with Pollard to this second claim. After all, didn't a new chargé mean that Chile's charade of delays, counter claims, and discoveries of "new evidence" could begin anew? But had Renjifo foreseen the volatile demeanor of chargé Pendleton, he would have rushed to sign agreements with Pollard to settle all outstanding differences between the two countries.

During late May and early June, 1842, Pollard met with Pendleton in Valparaíso, where the latter was able to gain valuable knowledge about the claims cases and prejudiced insights concerning the personalities of the Chilean officials.[52] Pendleton decided to adopt the stratagem of non-compromise coupled with open references to U.S. naval power, and within six months Chile agreed to begin immediate payment

on the *Macedonian's* first claim.[53] Quite self-satisfied, Pendleton then began correspondence dealing with the *Macedonian's* second claim, confident that by reasserting a militant tone Chile would acquiesce to his demands. His January 9, 1844 letter openly accused Chile of diversion and procrastination in this matter—measures which he described as hardly consistent with the "Perfect Justice" promised by President Manuel Bulnes. This letter ended with a threat of military recourse if Chile suggested further delays in the settlement.[54]

Foreign Minister Ramón Luis Yrarrázaval replied to Pendleton's letter by stating that he considered the letter personally slanderous and totally void of the dignity associated with diplomatic intercourse. Furthermore, if Pendleton persisted in that tactless tone, Yrarrázaval's department would reject all future correspondence with him.[55] Undaunted and self-righteous as ever, Pendleton informed Yrarrázaval that the incompetence of Chile's translator was to blame for the minister's misinterpretation of his tone. Then Pendleton demanded an immediate apology.[56] One hundred days later, he received a fifty-seven page reply from Yrarrázaval, again reiterating Chile's intransigence on the matter and informing Pendleton that he had addressed a letter to Washington in protest of Pendleton's conduct.[57] Secretary of State John C. Calhoun apparently did not share Yrarrázaval's assessment of Pendleton's actions, and there is no record of any departmental censure of Pendleton after he ended his mission in June, 1844. However, his replacement, William Crump, was extremely cordial in his relations with Chilean officials, even though in substance he accomplished little else.[58]

There was a year's gap between Pendleton's departure and Crump's arrival in Santiago in June, 1845. While not unusual, this suspension in direct relations appears especially unfortunate when one remembers that the middle and late 1840's witnessed a general anti-American sentiment in Chile and throughout Latin America. Had Crump arrived sooner, his tactful manner and patience could have helped counter Chile's fears of U.S. imperialism, emanating from actions against Mexico over the Texas controversy. Pendleton's mission had, of course, only served to intensify this anti-American image.[59] In his dealings with the *Macedonian's* second claim and other claims cases, Crump's position was always one of firmness tempered with patience. Foreign Minister Manuel Montt seemed as anxious as Crump to resolve these issues, and in late 1846, Manuel Carvallo was again sent as minister to Washington with specific instructions to facilitate a settlement. Carvallo praised Crump's professional attributes and lobbied against anyone of Pendleton's nature being chosen to follow Crump.[60]

Characteristically, it was Foreign Minister Camilo Vial, not the State Department, who informed Crump that he had been replaced.[61] Vial was apprehensive over Carvallo's report concerning the new appointment of Col. Seth Barton as chargé. His appointment had not gone un-

challenged in Congress, and Washington gossip circles heaved with rumors over his arrogance and witless urbanity.[62] It seems perfect irony that Barton arrived in Valparaíso on Christmas morning, 1847, on board the British steamer *Chile*—Barton proved to be the "Christmas present" that could even turn a Catholic nation against this holiest of days.[63] His two year mission was filled with constant bickering, unfounded accusations of personal slander, violent clashes with Chile's Catholic hierarchy, and even an episode in which his carriage horses were placed under arrest by the Santiago police.

Barton did succeed, however, in modifying the commercial treaty concerning the "most favored nation" principle. Since the signing of the 1833 treaty, Chile had negotiated several similar treaties with her sister republics, whose products were given preferred treatment over U.S. goods. All this was quite correct, of course, but Barton discovered that Chile's 1845 treaty with Spain granted Spanish imports equality with those of all nations, including Spanish America. Barton demanded that U.S. and Spanish imports be placed on equal footing—that of "most favored nation."[64] Vial delayed action on Barton's demands nine months, and then he ordered Carvallo to enact Article Thirty-one of our treaty which automatically terminated the agreement at the end of one year. The treaty expired on January 20, 1850, and no new commercial negotiations were undertaken until 1852.[65]

In September, 1848, Barton began a courtship with the aristocratic Isabel Asta-Buruaga, a romance that quickly became one of the prominent topics of conversation among Santiago's social elite. When Barton, a divorced Protestant, announced his intention to marry Isabel, their engagement was transformed into a battlefield for Chile's liberals trying to diminish the Church's influence. Archbishop Rafael Valentín rose to meet this liberal challenge and used the full weight of his primateship to oppose the marriage.[66] Valentín refused to grant a dispensation for Isabel on the grounds that a "North American" had told him that Barton had a wife in New Orleans.[67] Even Barton's sworn disposition to the contrary failed to change the archbishop's mind, and an enraged Barton soon surmised that it had been "a sad mistake to have looked for Christian justice at his Reverence's hands."[68] Isabel's love for Barton was stronger than the archbishop's threats of perdition, and on December 28, 1848, they were married in the U.S. legation by the chaplain of the U.S.S. Razee *Independence*. A few friends, Isabel's irreconcilable family, and several members of the diplomatic corps attended the ceremony.[69]

Since none of the invited Chilean officials attended the wedding, citing "grave impediments" to excuse their absences, Barton interpreted their actions as evidence of their disapproval.[70] Archbishop Valentín publicly proclaimed the marriage illegal, accused Barton of perjury and bigamy, and referred to Isabel as one who had lost her virtue and was in danger of losing her soul. Furious, Barton demanded an apology from

Valentín and indicted minister Vial for refusing to guarantee the protection due foreign envoys.[71]

It seemed to Barton that everyone had turned against him, and his actions during his remaining five months in Chile resemble those of a madman viciously striking out at innumerable foes—real and imagined. Exemplary of his sad mental state was the fact that when a Santiago policeman caught Barton's runaway carriage horses and placed them in the city stables to await ownership identification, Barton launched an official protest against the police's usurpation of jurisdiction over American property. He refused to accept the horses' return without an official apology from Vial.[72] Only Isabel gave him warmth and comfort during this trying time—she announced her pregnancy—and as they boarded the U.S.S. *Dale* on May 26, 1849, to begin their stormy voyage around Cape Horn, Chilean authorities surely breathed sighs of relief.[73]

While unique in several ways, Barton's mission exemplified how personality coupled with feelings of isolation from Washington influenced U.S. diplomacy during our first generation of relations with Chile.

## NOTES

[1] Heman Allen to John Q. Adams, April 29, 1824, *Dispatches from U.S. Ministers to Chile, 1823-1906.* Vol. 1, (General Records of the Department of State. Washington, National Archives). Referred to subsequently as *Dispatches.* Allen actually considered his post as little more than a sinecure, as indicated by his letter of acceptance in which he requested permission to retain his position of District Marshal of Vermont. *Ibid.,* Allen to Adams, February 15, 1823.

[2] *Ibid.,* Allen to Henry Clay, September 1, 1825.

[3] *Ibid.,* Allen to Clay, November 5, 1825.

[4] *Ibid.,* Vol. III, Samuel Larned to Clay, June 9, 1829.

[5] *Ibid.,* John Hamm to Martin Van Buren, July 20, 1831.

[6] *Ibid.,* Hamm to "My Dear Friend," May 31, 1832.

[7] *Ibid.,* Vol. V, Richard Pollard to John Forsyth, July 12, 1837.

[8] *Ibid.,* Vol. VI, John Pendleton to Abel P. Upsher, October 30, 1843.

[9] *Ibid.,* William Crump to James Buchanan, March 18, 1846. For eight years the legation did not have an official seal. *Ibid.,* Vol. III, Hamm to Van Buren, June 20, 1831.

[10] *Ibid.,* Vol. VII, Seth Barton to Buchanan, April 25, 1848.

[11] *Ibid.,* Vol. I, Allen to Adams, April 29, 1824.

[12] *Ibid.,* Allen to Adams, July 19, 1824. Allen had stated earlier that he would decline to comment on any subject other than those specifically dealing with United States relations with Chile. *Ibid.,* May 26, 1824.

[13] *Ibid.,* June 24, 1825. Shortly before Allen left Chile he sarcastically mentioned that during his mission he had corresponded with nine different foreign ministers. *Ibid.,* Vol. II, Allen to Clay, May 14, 1827.

[14] *Ibid.,* Vol. I, Allen to Adams, May 26, 1824.

[15] *Ibid.*, Allen to Adams, April 29, 1824. Allen's quote is yet another indication of his lack of understanding concerning Chilean cultural traditions. Catholicism has of course remained strong, as the renowned Gabriela Mistral stated, "You will understand us only if you remember always that Chile is Catholic. Even Chileans who are not Catholics are Catholic of the soul." Erna Fergusson, *Chile* (New York, 1943), p. 27.

[16] *Ibid.*, Larned to Clay, October 12, 1825.

[17] *Ibid.*, Larned to Clay, November 5, 1825.

[18] *Ibid.*, Larned to Clay, March 16, 1826.

[19] *Ibid.*, Vol. II, José Ignacio Cienfuegos to Larned, July 12, 1826.

[20] *Ibid.*, Francisco Pinto to Larned, September 17, 1826. Pinto referred to Larned as "mi guerido amigo." *Ibid.*, Larned to Clay, November 10, 1826.

[21] *Ibid.*, Larned to Clay, August 25, 1826.

[22] *Ibid.*, Allen to Clay, September 19, 1827. Confirmation of Larned's promotion did not reach him until April 14, 1827. *Ibid.*, Larned to Clay, April 19, 1827. Larned's official credentials did not arrive in Santiago until October, 1828. *Ibid.*, Vol. IV, Larned to Clay, November 9, 1828.

[23] *Ibid.*, Vol. III, Larned to Clay, April 11, 1828.

[24] *Ibid.*, Vol. II, Larned to Clay, November 1, 1827.

[25] *Ibid.*

[26] *Ibid.*, Vol. III, Larned to Clay, May 10, 1828.

[27] *Ibid.*, Larned to Clay, January 23, 1829.

[28] *Ibid.*, Larned to Van Buren, June 12, 1829. Larned thought that Washington wanted to have only one chargé for the Pacific coast.

[29] *Ibid.*, Larned to Van Buren, July 8, 1829.

[30] *Ibid.*, Larned to Van Buren, October 20, 1829.

[31] *Ibid.*, Larned to Carlos Rodriquez, October 10, 1829.

[32] *Ibid.*, Hamm to Van Buren, June 9, 1830.

[33] *Ibid.*, Hamm to Van Buren, December 17, 1830. Hamm's first embarkation, on board the *Gov. Clinton*, was aborted because of a storm, necessitating his securing passage on the *Don Quixote*. How appropriate! *Ibid.*, Hamm to Van Buren, January 2, 1831.

[34] *Ibid.*, Hamm to Van Buren, June 20, 1831.

[35] *Ibid.*

[36] *Ibid.*, Hamm to Edward Livingston, May 20, 1832.

[37] *Dispatches*, Hamm to Livingston, October 5, 1832.

[38] *Ibid.*, Hamm to "My Dear Friend," May 30, 1832.

[39] *Ibid.*, Hamm to Livingston, July 12, 1833.

[40] *Ibid.*, Hamm to Livingston, September 22, 1833.

[41] *Ibid.*, Hamm to Livingston, November 23, 1833.

[42] William R. Sherman, *The Diplomatic and Commercial Relations of the United States and Chile, 1820-1914* (Boston, 1926), pp. 31-32.

[43] Manuel Carvallo to John Forsyth, November 15, 1834, *Notes from the Chilean Legation, 1811-1906.* Vol. I, (General Records of the Department of State. Washington, National Archives.) Referred to subsequently as *Notes.*

[44] *Dispatches*, Vol. IV, Pollard to Joaquín Tocornal, April 15, 1835.

[45] *Ibid.*, Pollard to Forsyth, August 17, 1836.

[46] *Ibid.*, Pollard to Forsyth, December 27, 1836.

[47] *Ibid.*, Vol. V, Pollard to Forsyth, February 12, 1837.

[48] *Ibid.*, Pollard to Forsyth, July 12, 1837.

[49] *Ibid.*, Pollard to Forsyth, September 29, 1839.

[50] *Ibid.*, Manuel Renjifo to Pollard, September 30, 1839.

[51] *Ibid.*, Pollard to Forsyth, July 9, 1840.

[52] *Ibid.*, Pendleton to Daniel Webster, June 19, 1842.

[53] *Dispatches*, Pendleton to Webster, December 4, 1842.

[54] *Ibid.*, Vol. VI, Pendleton to Ramón Yrarrázaval, January 9, 1844.

[55] *Ibid.*, Yrarrázaval to Pendleton, February 2, 1844.

[56] *Ibid.*, Pendleton to Yrarrázaval, February 5, 1844.

[57] *Notes*, Vol. I, Yrarrázaval to Abel P. Upshur, June 12, 1844.

[58] Sherman, *Relations with Chile*, 45-47. Pendleton was appointed as U.S. Chargé d'Affaires to Buenos Aires in 1851. Dumas Malone, editor, *Dictionary of American Biography* (New York, 1930), XIV, 422.

[59] *Dispatches*, Vol. VI, Crump to John C. Calhoun, June 3, 1845.

[60] Diego Barros Arana, *Un decenio de la historia de Chile (1841-1851)*. (Santiago de Chile, 1906), I, 554. For sixteen months Buchanan did not respond to Carvallo's request for a conference on the *Macedonian* debacle. *Notes*, Vol. I, Carvallo to Buchanan, March 28, 1848.

[61] *Dispatches*, Vol. VI, Crump to Buchanan, October 18, 1847.

[62] Barros Arana, *Un decenio*, 553-554.

[63] *Dispatches*, Vol. VI, Barton to Buchanan, December 30, 1847.

[64] *Ibid.*, Barton to Buchanan, April 25, 1848.

[65] Henry Clay Evans, Jr., *Chile and Its Relations with the United States* (Durham, N.C., 1927), p. 74.

[66] Antonio Iñíquez Vicuña, *Historia del período revolucionario en Chile, 1848-51* (Santiago de Chile, 1905), pp. 238-241.

[67] Barros Arana, *Un decenio*, 557.

[68] *Dispatches*, Vol. VII, Barton to Camilo Vial, April 18, 1849.

[69] Iñíquez Vicuña, *Período revolucionario*, 249.

[70] *Dispatches*, Vol. VII, Barton to Vial, December 28, 1848.

[71] *Ibid.*, Barton to Vial, april 18, 1849.

[72] *Ibid.*, Barton to John M. Clayton, November 30, 1849.

[73] *Ibid.*, Barton to Clayton, May 26, 1849.

# THE PLATT AMENDMENT AND DYSFUNCTIONAL POLITICS IN CUBA: THE ELECTORAL CRISES OF 1916-1917

By Louis A. Pérez, Jr.

Electoral politics in Plattist Cuba set into relief the anomalous features of a political system straining to meet the requirements of legitimizing agencies abroad and the needs of diverse constitutencies at home. The quadrennial quest for the Presidential Palace in particular, during which American policymakers and Cuban politicos made the most intensive demands on the political order, tended to heighten the contradictions endemic to the national system. Between 1916 and 1917, some of the more notable anomalies of the Plattist system acquired an institutional quality in Cuban politics.

In mid-1915, President Mario G. Menocal shattered national calm with an announcement stating his intention to seek another term. Presidential re-election had long been a source of intense national controversy. The Cuban Constituent Assembly in 1901 reluctantly approved in principle—and only after hours of acrimonious debate—the juridical validity of re-election.[1] In the arena of practical politics, however, distant from the debates on constitutional theory, re-election served to exacerbate political controversy and intensify partisan struggles. Re-electionism became quickly associated with government fraud, coercion, and violence. Indeed, for those in office, incumbency offered monopoly access to the vital instruments of State to promote re-election; the electoral agencies, the courts, and the armed forces, applied to the pursuit of partisan objectives, conferred on the incumbent advantages well beyond the reach of his challenger.[2] A constitutionally legitimate end involved often unconstitutional means.

The passions aroused by re-electionism, however, reflected something considerably more than an outcry of injured constitutional sensibilities. Monopolization of national office by one party or faction threatened to block for others access to the sinecures of State. Insofar as the State served as the major source of employment,[3] elections institutionalized among political contenders a process by which all participants shared, more or less equally, a guaranteed access to government.

The forms of conventional electoral competition disguised the urgent non-political issues of national elections. Cuban politics early acquired a particular distributive quality. With so much of national wealth in the hands of foreigners, national office guaranteed the victorious constituency access to the levers of resource and benefit allocation in the only enterprise wholly Cuban—government. For the members of the

generation of '95, many of whom had devoted the better part of their adulthood to the disinterested pursuit of Cuban independence, republican politics served as the means of acquiring and expanding personal economic power. Re-election designs, in which incumbent access to the machinery of State virtually assured a second term, violated the informal intra-elite understanding by threatening to withdraw from circulation the sources of economic well-being. By virtue of the resources available to the chief executive seeking another term, elections involving the incumbent offered the opposition little more than the opportunity to participate in—and thereby lend legitimacy to—a ritualized sanction of presidential *imposición*. If in the end constitutional means failed to dislodge incumbent authorities according to prescribed electoral methods, the nature of the stakes required the opposition, alternatively, to resort to force.

After 1905-1906, a resort to arms to protest re-election fraud no longer represented merely a hypothetical response to a theoretical problem. The re-election of Tomas Estrada Palma, the result, the Liberals charged, of widespread government fraud and abuse, had plunged Cuba into civil war in 1906.[4] Only United States intervention in response to Estrada's appeal for assistance had saved the beleaguered Moderate Government from falling to insurgent Liberal armies.

Subsequent inquiry into the conduct of elections by the United States upheld Liberal charges of electoral irregularities.[5] Elections two years later, supervised by the American Provisional Government, swept Liberals into national office, vindicating further in the eyes of Party leaders the efficacy of the decision to rebel in 1906. Armed protest, even if unconsummated by the American intervention, had nonetheless restored to the electoral system the balance jeopardized by re-electionism.

President Menocal's decision in 1915 to seek another term, therefore, struck Cuba with the impact of a thunderbolt. Leaders of both parties received news of Menocal's plans with dismay. Many in the president's own party reacted adversely to re-nominating Menocal for a second term.[6] Insofar as re-nomination functioned within the party structure in much the same fashion as re-election in the national system, a second term for the incumbent promised to confine public office to the *menocalista* faction of the Conservative Party. Liberals, for their part, approached the election with greater misgivings than their Conservative rivals. As the party victimized by re-electionist abuses in 1905, the prospect of again campaigning against an incumbent caused Liberals to view Menocal's candidacy with considerable alarm.

Beyond domestic political considerations, both Conservatives and Liberals approached national elections in 1916 fully sensitive to the diplomatic context of Cuban politics. The conditions imposed on Cuban independence at the end of the American military occupation in 1902 had effectively subjected Cuban sovereignty to United States supervision.

The government of Cuba, Article III of the Platt Amendment stipulated, "consents that the United States may exercise the right to intervene for the preservation of Cuban independence, the maintenance of a government adequate for the protection of life, property, and individual liberty."[7]

In principle the Platt Amendment tended to invest American support effectively in constituted authorities. The United States commitment to constituted government conferred on incumbent authorities considerable advantage in the arena of national politics. Specifically, the Platt Amendment, as the understood basis of United States Cuban policy, encouraged outright an incumbent party, assured of American diplomatic support, to contrive re-election through illegal if ostensibly constitutional methods. Woodrow Wilson's Latin American policy, in condemning as a matter of principle all changes of government occurring outside prescribed parliamentary norms, heightened the advantage of incumbency. The renewed emphasis on constitutionality offered Conservatives ideal conditions under which to seek another term. Conservative leaders, as well as the old Moderate Party before them, understood the Platt Amendment to commit American support to the *de jure* government against all internal challenges.[8] Incumbent politicos, monopolizing the constitutional approaches to office and invested with American support as the duly constituted authorities, could proceed with re-electionist designs and defy the opposition to take up arms in protest. American policy offered the opposition no sanctioned alternative to "constitutional" unsurpation of power other than passive acquiescence; preoccupied with stability rather than the quality of constitutionality, Washington took little policy cognizance of "constitutional" usurpation by incumbent authorities. Indeed, the decision by Menocal to seek re-election may have been inspired by his assumption that Wilson's policy all but fo ıally guaranteed the incumbent a second term.[9]

If in principle the Platt Amendment and Wilsonian policy encouraged Conservative incumbents to hazard re-election, in practice American diplomacy offered the Liberal opposition sufficient precedents around which to organize an anti-re-election electoral strategy based on a resort to arms. Two compelling factors moved the threat of revolution to a position of central importance in the Liberal election campaign. First, the only leverage available to the Liberal opposition with which to persuade the incumbent administration to restrain partisan excesses lay in raising the spectre of revolution protesting fraud and coercion at the polls. In this sense, the invocation of revolution served notice on national authorities that an illegal imposition of a second term would not go unchallenged. Secondly, and perhaps ultimately of greater significance, the very construct of United States Cuban policy had demonstrated to the Liberals the efficacy of the revolutionary response to the constitutional usurpation of power. The successful resort to arms in

1906 had established a compelling precedent in Cuban politics. By raising the spectre of revolution, Liberals effectively converted the conduct of elections from a purely national process to a proceeding impinging directly on Cuban-American treaty relations. In effect, Liberal strategy appealed directly to Washington and generated pressure on the State Department to assume some responsibility for honest elections. If, in fact, the consequences of a disputed election threatened "life, property and individual liberty," as the Liberals announced in advance, then the very conduct of elections passed under the purview of the Platt Amendment.[10] The Liberals sought to mobilize, from extra-national sources, pressure on national authorities to conduct honest elections—elections they were confident of winning if properly conducted.[11]

Menocal's campaign confirmed the Liberals' worst fears. Pro-government military interventors displaced civilian officials not entirely committed to the Conservative cause. Government authorities increased harassment of opposition candidates and Liberal electors; violence, shootings, and, occasionally mysterious murders increased as election day neared.[12]

The administration's re-election efforts, however, failed to neutralize the preponderance of Liberal voters. Within hours of the closing of the polls, Liberal presidential candidate Alfredo Zayas began to move steadily ahead of his Conservative opponent. On November 2, a day after the election, preliminary returns indicated a Liberal sweep of four provinces, assuring Zayas of the presidency. Facing the prospect of his defeat at the polls, Menocal intervened directly in the tabulation process.[13] Telegraph and telephone communication between local election precincts and the Central Electoral Board ceased operations inexplicably. Election returns in the custody of government offices were altered.[14] In violation of the Electoral Code, returns reaching Havana passed through the highly politicized Department of Governación before reaching the Central Electoral Board. When the Central Board protested, returns from the provinces ceased flowing to Havana altogether.[15]

The interruption of returns plunged the island into a political crisis. Amidst charges and counter-charges of fraud and trickery, outraged Liberals moved the island closer toward civil war.

National tensions eased somewhat in mid-November when both parties agreed to submit the disputed election to the adjudication of appropriate electoral and judicial agencies. In the last week of December, the Central Board ruled in favor of the Liberal Party. The electoral tribunal awarded the provinces of Havana and Camagüey to the Liberals; the Conservatives received Pinar del Río and Matanzas. The Central Board also scheduled new partial elections for February 14 and February 20 in disputed precincts to resolve the disposition of Las Villas and Oriente. Victory in either province guaranteed Zayas the presidency. The electoral tribunal, lastly, awarded the Liberals a majority of 1,164

votes in Las Villas. Only six precincts, representing a maximum number of some 1,500 votes remained in dispute. With neither party claiming preponderant strength in the disputed districts, the Board's ruling seemed to ensure a Liberal victory.

The decision of the Central Electoral Board, subsequently upheld in January by the Supreme Court, ended all reasonable likelihood the administration would secure a second term at the polls. Unless the government overcame the deficit in Las Villas, an unlikely development, the American Minister reported, "the decision of the court as to Santa Clara assures a national Liberal victory."[16]

Within days of the Supreme Court decision, government authorities resumed the anti-Liberal campaign. Havana authorized the distribution of considerable quantities of arms and ammunition among Conservative partisans in precincts scheduled for partial elections.[17] In Las Villas, Havana unabashedly assigned pro-government army offices to serve as Military Supervisors.[18] Officials with pro-government sympathies assumed control of precinct posts and telegraph offices.[19]

On February 1, 1917, Liberal Party leaders convened in Havana to exchange impressions of the political situation. No one within the Liberal Directorate harbored illusions about Conservative intentions for the upcoming partial elections. The issue before the Liberal chieftains in early February, rather, consisted entirely of party strategy in the face of almost certain government fraud and coercion at the polls. One faction of the party, represented by Alfredo Zayas, proposed appealing to the United States to supervise the partial elections. Former president José Miguel Gómez headed another faction opposing the project.[20] To invite American intermeddling in Cuban political affairs, *miguelistas* contended, opened the party to charges of collaborating with foreigners to compromise national sovereignty. More to the point—and the central issue—to pursue supervision publicly without success would cause the Liberal Party lasting damage nationally without satisfactorily resolving the immediate question of partial elections. In a compromise settlement, party leaders agreed to seek American assistance publicly only after having received in advance a private commitment from Washington to supervise elections. In early February, Zayas related privately the purport of the party compromise to the American Minister, asking the Legation to transmit the Liberal request to the State Department.[21]

At some point during Liberal deliberations in early February, moreover, party leaders also completed arrangements for an alternative course of action. Plans for the long threatened Liberal uprising were consummated. Only a disagreement over timing between the *miguelista* sector, advocating a strike before the partial elections, and the Zayas faction, arguing for a postponement until after February 14, separated the party leadership. Liberal chieftains did agree, however, on a plot organized around a far-flung conspiracy with leaders of the army. The

plan consisted of a swift seizure of military installations in Havana seconded by army take-overs in provincial capitals.[23]

In early February the conspiracy remained only a well-organized alternative to unsatisfactory policy responses from Washington. Through the first week of February, 1917, Liberal authorities continued to search in Washington for a solution to the political impasse. By February 10, more than a week had passed without response since Zayas had appealed privately to the Legation for supervision. With partial elections only four days off, Washington's silence offered Liberals little hope of United States surveillance of government conduct of the balloting. During February 9-10, moreover, government authorities had uncovered the most exposed roots of the Liberal military conspiracy in Havana. After the arrest of key officers in Camp Columbia and La Cabaña, the Liberal plot in the capital collapsed. Facing the prospect of the nation-wide conspiracy unraveling by disclosures in Havana, and despairing of American supervision, the Liberal leadership moved against the government.

Within forty-eight hours, the Liberals established mastery over the two eastern provinces of Oriente and Camagüey and partial control over Las Villas; insurgent bands operated throughout the national territory. A quarter of the army had flocked immediately to Liberal banners. In all, some 30,000 men had taken up arms to support the Liberal protest.[24]

Almost immediately an uneasy truce settled between both armed camps. Both Liberals and Conservatives turned to Washington for the crucial margin of support in the Cuban contest. The Liberal decision to remain under arms after the still-born coup in Havana stemmed not so much from an expectation of defeating the *menocalistas* in the field as it did on the anticipation of a favorable American policy response. Given the binding nature of Cuban-American treaty relations, particularly United States responsibility for political stability on the island, the insurgent leadership reasoned that the spectre of civil war in Cuba perforce involved the United States. Out of this treaty commitment, the Liberals expected to obtain minimally a favorable mediation of the dispute. If all else failed, a prolonged insurgency designed specifically to activate the intervention clause of the Platt Amendment, offered still another alternative method of overturning the Conservative government.

Two days after the ill-fated coup in Havana, the Liberal Directorate reissued in the United States its original demand for honest elections. The willingness to revive original objectives did not result entirely from defeat. On the contrary, it stemmed from an appreciation of actual successes, more specifically, the movement's potential. Entrenched securely in the eastern province, districts of considerable American investment, the Liberals offered to trade-off peace and continued war-time prosperity for honest elections.

Menocal, for his part, avoided admitting—as Estrada Palma had in 1906—the need for American military assistance. On the contrary,

Havana repeatedly assured Washington it possessed the capacity to suppress the revolt expeditiously, with minimum loss to foreign interests, and without American armed assistance. Menocal carefully refrained from asking Washington for anything more than "moral support" and "benevolent neutrality."[25] However bleak the future of his administration may have appeared in mid-February, and, indeed, at one point, few in Havana expected the Conservative government to survive the Liberal challenge, Menocal recalled only too well the fate of the Estrada government and never admitted that events in Cuba had developed beyond the control of authorities in the capital.

Unwilling to intervene militarily in Cuba in February, 1917, Washington sought diplomatically to bolster the badly shaken Menocal government. The course of the revolt in the first seventy-two hours had left Havana seriously weakened and highly vulnerable to the gathering insurgent momentum. Having lost immediately almost half the island to insurgent forces, Menocal's ability to survive the Liberal challenge rested entirely on his capacity to contain any further erosion of his support in the western provinces. In mid-February, many supporters in pro-government ranks included persons awaiting only a more propitious moment to defect to the rebel forces. The swift suppression of the conspiracy in Havana had allowed many committed but uncompromised pro-Liberal officers to remain in the armed forces undetected. Although several members of the Liberal congressional delegation had joined the Party leadership immediately in the field, many more had delayed making a final commitment to arms pending the outcome of early fighting; a defection of any magnitude threatened to deprive Congress of a quorum and cripple national legislative processes.

Washington hoped through diplomatic support to aggregate for the beleaguered Conservatives the strength they lacked nationally. An expression of American support of Menocal was vital on several counts. Most immediately, such a statement would serve to disabuse the insurgent Liberals of the prevailing supposition that, as in 1906, Washington planned to intervene militarily to resolve the dispute. No other single belief was as vital to Liberal strategy as the expectation of American intervention. The decision to remain in the field well after the failure of the coup rested almost wholly on Liberal hopes of United States intervention. Equally important, once the army received assurances that the United States would not abandon Conservatives, thereby foreclosing any possibility—as had happened to the armed forces in 1906—that the pro-government activities of the military in the course of the campaign would be subject to the scrutiny of American investigators and the reprisal of a subsequent Liberal regime, army leaders had little inclination to defect to what seemed a cause diplomatically foredoomed to disappointment.

The State Department stepped directly into the Cuban crisis. In a series of dramatic moves, Washington chose to publicize selected diplo-

matic notes as the means through which to outline its position in regard to the Cuban political crisis. In a series of public notes transmitted to Cuba through the Legation, the United States mounted a major effort to establish the Conservatives on firm ground nationally. In principle, Secretary of State Robert Lansing sought to reiterate Washington's opposition to all government founded on force and revolution.[26] More specifically, the State Department condemned the Cuban insurrection directly. On February 13, Lansing expressed "the greatest apprehension" over the news of the revolt in Cuba.[27] In a second note five days later, the State Department reiterated in some detail its support of the Menocal government and repeated its view of the insurgency. Denouncing the revolt as "Lawless and unconstitutional," Washington pledged to "give careful consideration to its future attitude towards those persons connected with and concerned in" the Liberal uprising.[28]

The American notes immediately had a far-reaching effect. Many Liberals who earlier had delayed their decision to join the Party leadership in the field now abandoned altogether plans to support the movement. Publicity of American support of Menocal, moreover, contributed to arresting the deterioration of the government's position nationally. A considerable number of insurgent chieftains in the field, convinced now that the American position ended the movement's only hope of success, surrendered to government authorities. Other Liberal leaders weighed personal political aspirations in the future against reprisals to the participants; for given the nature of the United States controls over the Cuban national system, few political leaders in the field, thinking into the future, could receive such a warning without pausing to re-examine the wisdom of their position in 1917. Many yielded to the future. Two days later, members of the Liberal congressional delegation caucused and declared themselves "pacifists."[29] In perhaps the most demoralizing defection of all, presidential candidate Zayas disassociated himself from the rebel leadership and surrendered to authorities.

By late February, American policy had contained the political threat to the Menocal government. Publication of the February 13 note, the Legation reported two days later, had had a "beneficial effect in abating [the] ardor of [the] revolutionary party."[30] With the publication of the second note on February 18, the Legation expressed confidence that Havana could "completely dominate" the political situation in a matter of weeks.[31]

The electoral events of 1916 and the insurrection of 1917 further institutionalized the presence of the United States in island politics. The insertion of the Platt Amendment onto the center stage of Cuban national processes, together with a developing understanding in Cuba of American policy introduced an unsettling influence into the island. The institutionalized presence of the spectre of intervention often made intervention inevitable. Indeed, intervention was as much a cause of

instability as it was the result. A political culture emerged in Cuba, organized around Havana's understanding of the requirements of American policy in which national authorities were held accountable to legitimizing agencies abroad. Under the Platt Amendment, Washington emerged as the center of Cuban politics; increasingly, the Cuban political drama was played for the benefit of an American audience.

The American presence loomed over the polity, seized by all power contenders seeking advantage over national rivals. Fierce internal rivalries and intra-elite struggles for national hegemony provided the bases for the collaboration between Cuba and the United States; political rivals in search of advantage served as active and faithful collaborators of the interventionist power. Insofar as the United States served as the focal point around which Cubans organized a political universe, American policy came to be something of a pawn pushed by all power contenders. United States intervention became a threat wielded more frequently—and with greater skill—by Cuban politicos against one another than a diplomatic device employed by Americans in pursuit of policy objective.

A distinct logic came to characterize the reciprocal behavior of Cubans and Americans. Cubans accepted not only the reality of United States hegemony but legitimized American pre-eminence through complicity and cooperation and, whenever possible and expedient, manipulated American pre-eminence to their advantage. Cuban collaboration was at once the necessary cause and the inevitable effect of United States hegemony; the interventors and the intervened together underwrote the viability of the client state.

## NOTES

[1] "Record of Sessions of the Constitutional Convention of the Island of Cuba," (7 vols., Unpublished Manuscript, Bureau of Insular Affairs Library, National Archives, Washington, D.C., 1901), III. Cf. Julio Villoldo, "Las reelecciones," *Cuba Contemporánea*, (Marzo, 1916), 237-252.

[2] José Manuel Cortina, *La reelección presidencial* (La Habana, 1916), pp. 36, 41.

[3] Mario Guiral Moreno, "El problema de la burocracia en Cuba," *Cuba Contemporánea*, 2 (Agosto, 1913), 257-267 and Miguel de Carrión, "El desenvolvimiento social de Cuba en los últimos veinte años," *Cuba Contemporánea*, 27 (Septiembre, 1921).

[4] Enrique Collazo, *La revolución de agosto de 1906* (La Habana, 1907), pp. 12-13.

[5] See William Howard Taft and Robert Bacon, "Cuban Pacification: Report of William H. Taft, Secretary of State, and Robert Bacon, Assistant Secretary of State, of "What Was Done Under the Instructions of the President in Restoring Peace in Cuba," Appendix E, *Report of the Secretary of War, 1906*, 59th Congress, 2nd Session, House Document No. 2, Series 5105 (Washington, D.C., 1906).

[6] For the *menocalista* position on re-election see Recardo Dolz y Arango, *El proceso electoral de 1916* (La Habana, 1917), pp. 5-7.

[7] United States Congress, *Statutes at Large (1903-1905)* (Washington, D.C., 1905), p. 2249.

[8] See Enrique José Varona, *De la colonia a la República* (La Habana, 1919), pp. 214-215.

[9] In acknowledging United States support after the outbreak of the Liberal revolt in February, 1917, Menocal revealed his understanding of American policy: "President Wilson's attitude has been no less gratifying, because his well-known policy during the last four years with respect to Governments which are the product of revolutions had led us to expect what it would be in this particular case." *New York Times* (February 22, 1917), 9.

[10] Orestes Ferrara, "Las elecciones de Cuba y el gobierno de Washington," *La Reforma Social*, 18 (Octubre, 1920), 125-131.

[11] George Bayliss, American Consular Agent, Antilla, to Frederick Herron, October 9, 1916, File (1916) 710, Miscellaneous Correspondence, American Consulate, Santiago de Cuba, Records of the Foreign Service Posts of the Department of State, Record Group 84, National Archives, Washington, D.C.

[12] "La guerrita de febrero de 1917," *Boletín del Archivo Nacional* (Havana), 61 (Enero-Diciembre de 1962), 208-212.

[13] One Cuban historian suggests that the Administration's decision to intervene in the tabulation process occurred only after Menocal was reasonably certain that Wilson would win re-election in the United States. See Rafael Rodríguez Altunaga, *El General Emilio Núñez* (La Habana, 1958), pp. 214-215.

[14] For a detailed chronicle of election irregularities see "Brief Synopsis of Cuba's Present Internal Politics," October, 1919, File 1249, Material on Cuba, Enoch H. Crowder Papers, Western Historical Manuscript Collection, University of Missouri, Columbia, Missouri.

[15] Alfredo Zayas, "A Statement on the Elections in Cuba, Held November 1, 1916," 837.00/1253, Department of State, General Records, Record Group 59, National Archives, Washington, D.C. (Hereinafter cited as DS/NA, RG 59). Returns tabulated up to and including November 2 gave Conservatives 184,680 votes to the Liberals' 188,994. "La guerrita de febrero de 1917," p. 207. William E. Gonzales to Secretary of State, November 21, 1916, 837.00/1047, DS/NA, RG 59.

[16] William E. Gonzales to Secretary of State, January 22, 1917, 837.00/1056, DS/NA, RG 59. Days after the Supreme Court decision, Minister William E. Gonzales found Menocal "bitter against the Supreme Court," having a "mental attitude" leading the American envoy to fear that the Conservative President could not be restrained from using every means possible to overcome the Liberal majority in Las Villas. "This means," Gonzales wrote, "employment of force, killing of Liberal managers at the polls and declaration of palpably fictitious results." *Ibid.*

[17] P. Merrill Griffith to Secretary of State, January 29, 1917, 837.00/1061, DS/NA, RG 59.

[18] H. K. Hewitt, Commanding Officer, "USS Eagle," to Secretary of the Navy, 837.00/1270, DS/NA, RG 59.

[19] León Primelles, *Crónica cubana, 1915-1918* (La Habana, 1955), p. 239. P. Merrill Griffith to Secretary of State, January 29, 1917, 837.00/1061, DS/NA, RG 59.

[20] Primelles, *Crónica cubana, 1915-1918*, 243.

[21] William E. Gonzales to Frank L. Polk, February 4, 1919, Drawer 77, File 243, Frank L. Polk Papers, Sterling Memorial Library, Yale University, New Haven, Connecticut.

[22] Carlos Guas, "?Quién ordenó el levantamiento de febrero?" *El Mundo* (junio 17, 1919), 16.

[23] Horacio Ferrer, *Con el rifle al hombro* (La Habana, 1950), p. 221.

[24] *Ibid.*, p. 246.

[25] See Mario G. Menocal to Woodrow Wilson, March 5, 1917, Series 2, Box 158, Woodrow Wilson Papers, Library of Congress, Manuscript Division, Washington, D.C., and William E. Gonzales to Secretary of State, Department of State, *Foreign Relations of the United States: 1917* (Washington, D.C., 1928), p. 355 (Hereinafter cited as *FRUS*).

[26] Robert Lansing to William G. McAdoo, February 17, 1917, Vol. 24. Robert Lansing Papers, Library of Congress, Manuscript Division, Washington, D.C.

[27] Robert Lansing to William E. Gonzales, February 13, 1917, FRUS, p. 356.

[28] Robert Lansing to William E. Gonzales, February 18, 1917, FRUS, p. 363.

[29] "La guerrita de febrero de 1917," 232.

[30] William E. Gonzales to Robert Lansing, February 15, 1917, 837.00/1085, DS/NA, RG 59.

[31] James L. Rodgers, Consul General, to Secretary of State, February 19, 1917, 837.00/1107, DS/NA, RG 59.

# UNITED STATES INVOLVEMENT IN PANAMANIAN POLITICS DURING TAFT'S ADMINISTRATION

By Frank Gerome

After Panama's independence in 1903, political unrest developed with each election as competing factions jockeyed for power; at times the turbulence resulted in violence which threatened to endanger the construction of the Panama Canal and U.S. interests there. Political candidates and their parties often turned to the United States for assistance.[1] This occurred in the elections of 1908 when the leaders of both the Conservative and Liberal parties requested U.S. supervision of the elections. William Howard Taft, as Secretary of War under President Roosevelt, was involved in this effort before embarking on his own presidential campaign. On the eve of the elections in Panama, supporters of the incumbent administration complained bitterly of U.S. interference and boycotted the polls; consequently, José Domingo de Obaldía won, but in his inaugural address he denied having requested U.S. aid.[2] After Taft became President, both he and Secretary of State, Philander Knox, were well aware of the difficulty of attempting to influence political developments and maintaining peace and stability in Panama, but with the construction of the canal approaching its final stages that goal remained the administration's primary objective in Latin America.[3]

Opposition to Obaldía's administration erupted in early 1910 as Panama prepared to elect deputies to the National Assembly. Carlos A. Mendoza, the second *"designado"* (one of the three vice-presidents) and Belissario Porras, a popular Liberal figure and the minister to Costa Rica, led the attack.[4] Obaldía hoped to remain in office and argued that only he could hold a Conservative-Liberal coalition together and prevent the election of these "dangerous liberals."[5] Political expectations for the opposition changed abruptly when Obaldía suffered a heart attack[6] and died on March 1; thus, Mendoza succeeded to the Presidency to complete the two years remaining of the deceased president's term.

The U.S. Chargé d'affaires, George T. Weitzel, expressed deep concern because executive power had passed to the liberal branch of the coalition party. Weitzel also questioned the legality of Mendoza's succession because he had taken the oath of office before the President of the Supreme Court rather than the President of the National Assembly as provided in the Panamanian Constitution.[7] Several days after Mendoza assumed office, Weitzel sent reports predicting a grim future for U.S.-Panamanian relations and declared that the new President, a mulatto, had a "racial inability" to refrain from abusing power. Weitzel warned

that Mendoza would quickly be able to strengthen his political support, gain control of the National Assembly and, once elected, prove "extremely unsatisfactory" to the better classes of Panamanians and "decidedly objectionable" to Americans. Mendoza's popularity, he noted, was based on the assumption that he would protect Panamanians against the Yankees.[8]

Throughout the spring and summer of 1910 conservative opposition to Mendoza increased. Publicly, many argued that he was not constitutionally able to run for President since he already occupied that office.[9] But a greater source of fear and tension—not discussed so openly—were the racial factors which Weitzel had noted. The U.S. Minister, R. S. Reynolds Hitt, also commented on this and predicted that if the United States took no action, Mendoza would be elected.[10] He also pointed out that all political groups in Panama were aware that the wishes of the United States must be observed and that no leader or party would be strong enough to resist them. Aware of this, Mendoza appealed directly to President Taft and informed him that conditions in Panama were peaceful and that elections would take place fairly and honestly.[11]

When the National Assembly elections occurred on July 1, Liberal delegates won a substantial majority which assured Mendoza's election in September.[12] This prompted the newly appointed U.S. Chargé d'affaires, R. O. Marsh, to launch a vigorous campaign to persuade Washington to bloc Mendoza's election. That could be prevented he declared, if the United States simply suggested that such procedures were unconstitutional and that Article 136 of Panama's constitution recognized the right of U.S. intervention to establish order. He too expressed concern about Mendoza's popularity with blacks who were "ignorant, and irresponsible, unable to meet the serious obligations of citizenship in a Republic."[13] Both Marsh and Hitt pointed out that all Caucasians in Panama (foreigners as well as natives) hesitated to have social contacts with Mendoza and his wife because of their race (she was a full-bloodied black). Hitt explained that many Panamanians believed this hampered business transactions and diminished the reputation of Panama abroad, and were anxious that their nation be considered a "white man's country and not a nigger country." Mendoza's election, he added, would have a negative effect on U.S. activities through Central America where the white power structure would assume that American influence meant the encouragement of Negroes in office; they would more vigorously combat the influence of the United States.

On August 5, 1910, Marsh reported that he had just had a long conference with Col. Goethals who also agreed that the interests of the canal project, American influence, and of Panama all demand that Mendoza should not be reelected; he again urged officials in Washington to prevent that from happening.[14]

As the time for the election approached and officials in Washington failed to comply with the suggestions emanating from the legation in

Panama, Marsh intensified his attack on Mendoza; he compared him to a potential Zelaya or Cabrera and warned that he was a "grave menace to Panama and American influence." Marsh added that Mendoza led an immoral private life which was evident by his open support of two mistresses and numerous illegitimate children.[15]

Naturally, rumors that the United States opposed Mendoza's election quickly spread throughout Panama. This prompted the Acting President to send a representative to discuss this with Marsh who told him that Mendoza said he would comply if Marsh refrained from issuing a public protest against him or opposing his appointment as Secretary of Interior and Finance, a position he had held previously. "I replied that I thought this would be highly satisfactorily," explained Marsh, "and have arranged a conference between Mendoza, Col. Goethals, and myself for tomorrow afternoon." If his actions were approved, he added, "Mendoza would resign and bloodshed in Panama would be avoided."[16] Throughout these maneuvers, Mendoza was uncertain whether or not Marsh's attitude toward him reflected the opinion of the Department of State but his doubts were removed when Huntington Wilson, the Assistant Secretary, informed Marsh on August 24 that he concurred with his views and instructed him to notify Mendoza of this. The effect was immediate; Mendoza withdrew as a candidate which left the National Assembly with two leading contenders: Samuel Lewis who was pro-American and had Marsh's enthusiastic support and Belissario Porras who, according to Marsh, meant more trouble for the United States. Then Marsh exerted further pressure to influence political developments by urging Mendoza to pledge his support to Lewis.[17] This latter action provoked Huntington Wilson who believed Marsh had exceeded his instructions; he reprimanded him for his excessive meddling in Panamanian politics and instructed him as follows:

> The Department fully appreciates your good work in a difficult situation but you must not nullify it by sowing the seeds of hostility on the part of Mendoza's following or antagonizing Porras who is quite likely to be President two years hence if not now, who, when lately in Washington seemed not unfriendly and who, with skillful handling should be made thoroughly friendly to the United States.[18]

Marsh was disturbed and pointed out that the Department had misunderstood his actions which did not include unnecessary interference in local politics. He explained that he had been overworked in recent weeks, that he had kept in constant touch with Col. Goethals, and that the blacks were responsible for the rumors which criticized him and circulated widely in Panama. He added that U.S. business interests there had been "subjected to constant persecution" during the pastyear and believed that the present Liberal control of the government should be weakened or the business interests would be forced to appeal directly to

Washington for assistance. The Chargé also mentioned that canal zone authorities were disturbed and that many people, including the "respectable element" of Panama, believed that Mendoza's election would precipitate American occupation. In an effort to soothe Marsh's feelings, Huntington Wilson assured him that while his actions were generally approved, the Department simply hoped that both he and Goethals would "exercise the greatest tact, conciliation and circumspection. . . ."[19]

President Taft was completely unaware of the controversy Marsh had created in Panama. On September 7 when Huntington Wilson asked him to approve the Chargé's actions and announce that they reflected the U.S. official view, Taft responded: "I am wholly uninformed as to the Panama matter. What is it that Marsh has been doing down there and under whose direction has he been acting?"[20] The following day, Huntington Wilson sent him a summary of politcal conditions there along with the Department's pertinent dispatches. Then, on the same day, he informed Marsh that the United States had no preferences among the candidates in Panama's election.[21] His sudden neutrality was undoubtedly prompted by Taft's belief that Marsh's involvement had seriously aggravated Panama's political problems and increased hostility toward the United States. Taft had recently received a letter signed by twenty-one delegates of the Panamanian National Assembly who complained of Marsh's actions and stated that the Chargé had informed newspapermen that the United States would occupy and annex Panama unless the delegates selected the "right" candidates [*i.e.*, Lewis] to succeed Mendoza.[22] Naturally this provoked an uproar in Panama. After reading some of the dispatches from Panama, Taft concluded that Marsh had been "overzealous" and that the Chargé had "grossly misrepresented" the attitude of the United States.[23] Taft firmly believed that the United States should not become involved in influencing the selection of the candidate or party in Panama's election and was certainly not threatening annexation.[24] He finally concluded that Marsh was "utterly unfit to represent us there" and revealed his thoughts on U.S. influence and Panamanian politics in a letter to Huntington Wilson:

> [Marsh] evidently thinks that it is his business to elect some particular person and he accepts every story and every criticism of a liberal that can be suggested and would give the impression that chaos is to follow the election of any liberal. We have such control in Panama that no Government elected by them will feel a desire to antagonize the American Government. I am particularly anxious to avoid the charge of undue meddling because of its effect in Central America and South America. The tone of Marsh's dispatches shows that he is fresh and insubordinate.[25]

Marsh was soon recalled and a new minister, Thomas C. Dawson, was temporarily assigned to Panama. Meanwhile, the National Assembly had

unanimously elected Pablo Arosemena first Vice President to succeed Mendoza when his term expired at the end of the month.[26]

In his inaugural address of October 5, 1910, Arosemena spoke of the unusual ties between Panama and the United States and announced that under no circumstances would he be a candidate for re-election in 1912.[27]

Taft visited Panama in November 1910 to inspect the progress of the canal. Unfortunately his four day tour of the Isthmus renewed rumors of annexation despite his repeated denials.[28] He was encouraged with the progress he saw and predicted the canal would open earlier than the anticipated date of January 1, 1915. He expressed hope that political unrest would not flare up again and create disturbances which might threaten that progress.[29]

But the parade of rival Panamanian political factions coming to Washington, attempting to cultivate support for the 1912 presidential elections, was soon under way and there were signs that tranquility there would be difficult to achieve.[30] On June 2, 1911 Carlos Arosemena, the nephew of the President, was in Washington and declared that his uncle had "reluctantly consented" to be a candidate for re-election and hoped for U.S. support.[31] Taft explained that while the United States had interfered in 1908 to help guarantee a fair election, there would be no effort to influence the selection of any particular person as President in the forthcoming election. He told Arosemena that the U.S. would have no objection to the re-election of his uncle but would not indicate a preference.[32]

With the canal nearing completion and partisan politics gearing up again, the State Department attempted to strengthen and improve the effectiveness of the U.S. legation in Panama by appointing an experienced diplomat, H. Percival Dodge, as minister.[33] Shortly after Dodge arrived in Panama, Ricardo Arías and Santiago de la Guardia began the familiar game of cultivating his support.[34] Both men were disappointed when Dodge explained that the United States would not endorse any candidate. The new minister expressed surprise that so much attention and speculation focused on the presidential elections "notwithstanding their comparative remoteness."[35]

Political tensions in Panama erupted into open violence and street fighting in December 1911. The disturbance involved approximately one thousand participants and caused some observers to believe that the nation was on the verge of revolution. Dodge was especially concerned that the violence would escalate and injure or kill U.S. citizens.[36] The unrest provided Arosemena with an opportunity to intensify his efforts to obtain U.S. intervention in order to prevent a possible Liberal victory. The Panamanian Attorney General urged Taft to intervene ". . . in favor of this country to which both you and Mr. Roosevelt have given life."[37]

Arosemena began to dismiss office-holders whose loyalty to him was questioned. Political removals were most evident in the police force

which soon became filled with supporters of the administration. According to Dodge, Arosemena and his party, *Unión Patriótica,* had a narrow base of support; he predicted that if the elections were honestly conducted, the Liberal Party's candidate would be overwhelmingly elected.[38] On February 12, 1912, the Liberal Party held its convention and selected Belissario Porras for its presidential candidate.

In Washington, Minister Arías intensified his efforts to persuade the administration to indicate a preference toward Pedro Díaz, the newly designated candidate of *Unión Patriótica* which formed a coalition of Conservatives and Liberals who had earlier supported Pablo Arosemena. Obviously annoyed, the Assistant Secretary of State declared: "[Arías] is asking for another interview and it is my intention to tell him once and for all that this Government sees no occasion at present which would justify it in expressing itself on the subject..." Taft also refused to alter his position. His secretary noted: "He does not wish to interfere in Panama as he feels they must work out their own salvation."[39] In response to a letter Arías had written requesting U.S. assistance, Taft explained:

> It is more responsibility than we can afford to assume. What we would do would be misunderstood, and we must see whether matters can work themselves out for the benefit of the people of Panama without our intervention. Of course I can conceived that the time might come when we must intervene, as we have done before, but nothing has yet been brought to may attention indicating a case which would justify action on our part.[40]

The President's attitude changed in May when the electoral contest became increasingly bitter and violence erupted again between Porristas and the followers of *Unión Patriótica.* By the time the Panamanian government and both political parties had requested U.S. intervention to supervise the elections. The Liberals were fully aware that it was their only hope of a possible victory. Minister Dodge recommended U.S. supervision as "the only way of avoiding serious disturbances and securing fair elections." When Huntington Wilson informed Taft of this volatile atmosphere in Panama and urged that the U.S. supervise the elections, the President quickly agreed to undertake that responsibility again.[41]

Dodge was appointed Chairman of the supervisory committee which included representatives of the Panamanian government and both political parties. During the committee's initial meeting at the American legation he made clear that the United States had no preference among the candidates—the sole purpose of the supervision was to guarantee that the constitution was observed and that law and order prevailed. The committee agreed to extend the voter registration period from May 15 to the 31st and immediately began to direct that process. *The Panama Star and Herald* praised the committee's effective work during the registration period and predicted that the elections would occur "without coercion, fraud, or disorder."[42]

But there were many who did not share this optimism and complaints were brought to the attention of the supervisors even before election day. Porristas declared that registration lists had been "doctored" and police brutality was widespread. There were also rumors that the Panamanian government resented the presence of the supervisors and intended to provoke disturbances in order to bring about U.S. military occupation which might prevent Porras' election. Rumors of assassination plots circulated widely.[43]

When Liberal candidates won by a large majority in the municipal elections of June 30, Díaz supporters blamed the supervisors and registered protests in ten election districts.[44] Porristas pointed out the administration's efforts to prevent them from voting by widespread intimidation and arrests of their leaders. In many districts, the supervisors noted the lack of cooperation by the police and other local authorities.[45] When the supervisors had urged local officials to disarm policemen on the day of the election, the Panamanian government became deeply disturbed. Minister Arías discussed this at a conference at the White House and declared that such action was humiliating and created the impression that the supervisors favored the Porristas. He also stated that Porristas had padded the registration lists which would be used in both municipal and national elections. William T. S. Doyle, a key member of the State Department's Latin American Division who attended the conference, suggested that the impartiality of the supervisors had been demonstrated by the fact that both Panamanian political parties had complaints.[46]

After the Liberal's victory in the municipal elections, which Arías claimed was won by fraud, he repeatedly visited the State Department in an effort to gain U.S. support for a plan to postpone the national elections. Huntington Wilson was unsympathetic and believed that Dodge and the supervisors had conducted themselves with impartiality; he informed Arías that a postponement of the election was illegal.[47] Arías complained that just a few months earlier, Díaz' election looked virtually certain because of the enthusiasm with which he had been received during his electoral campaign. He declared: "All this unhappily has been destroyed by the actions of Minister Dodge."[48] It was impossible to please everyone.

Faced with defeat and after reaching the conclusion that it was not in their interest to have a fair election, followers of *Unión Patriótica* withdrew their candidate and urged their supporters to abstain from voting. Consequently, the elections occurred with few disturbances and Belisario Porras won overwhelmingly. Dodge reported that they were the fairest the nation had ever experienced. *The Panama Morning Journal* praised the impartiality and effective work of the minister and the supervisory committee and claimed that the majority of Panamanians shared these views. *The Panama Star and Herald* concurred and argued that the

substantial Liberal victory indicated that the election had not been fraudulent.[49]

In contrast to these reports, bitter resentment toward the U.S. supervision of the elections and Americans in general erupted on the night of July 4th in the Cocoa Grove section of Panama. Several hundred U.S. soliders celebrating the holiday there clashed with Panamanian police who killed one and wounded nineteen others. In an effort to place the blame for the tragedy, accusations poured forth from various quarters. Some argued that drunken U.S. soliders initiated the incident. Others claimed it was caused by the over-reaction of the Panamanian police. Members of *Unión Patriótica* argued that the soliders and the U.S. government were responsible because of the "unfair" election supervision which had inflamed the population. Porristas pointed out that the police were angry with Americans and resented the intereference of the supervisors; they viewed the outbursts as another incident instigated by *Unión Patriótica* whose aim was to force the U.S. to intervene and annual the elections. The controversy surrounding the Cocoa Grove disturbance created addmitional tensions and diplomatic problems between the two nations during the remaining months of Taft's administration and continued into the succeeding one.[50]

In response to the anti-American sentiment which prevailed in Panama toward the end of Taft's administration, a *New York Times* editorial made the following observation:

> . . . they fret under a peace and prosperity at once alien and compulsory. Who wouldn't. Of course, they are unwise to let their irritation betray them into hopeless resistance, but there is nothing peculiar in their ingratitude [*sic*] for unwanted favors; that is not Panamese [*sic*] or Central American; it is only human.[51]

Taft's experience with Panama revealed some of the problems of attempting to influence political developments in Panama; it would be virtually impossible to do without incurring hostility and resentment.

Belissario Porras, of course, was grateful for the American supervision which enabled him to win the election; he informed Dodge that he would appoint a minister for Foreign Affairs who would be a "special friend" of the United States and that with American assistance, he intended to enact sweeping reforms in the police force.[52] His inauguration occurred on October 1, 1912; a month later Taft became a lame-duck President and prepared to turn over the frustrating responsibilities of maintaining "peace" in Panama and the opening of the canal to a new administration.

## NOTES

[1] See G. A. Mellander, *The United States in Panamanian Politics: The Intriguing Years* (The Interstate Printers & Publishers, Danville, Ill., 1971) for an account of U.S. involvement in Panamanian politics from 1903 through the 1908 elections. See also William McCain, *The U.S. and the Republic of Panama* (Durham: Duke University Press, 1937); and the memorandum prepared by U.S. Minister to Panama, R.S.R. Hitt, August 12, 1910, 819.00/297. U.S. Department of State, Records of the Department of State Relating to the Internal Affairs of Panama, 1910-1929, Microcopy No. 607. Unless otherwise noted, documents in this study are from these records and are hereafter cited solely by the decimal number.

[2] George T. Weitzel, U.S. Chargé d'Affaires, to SecState, October 2, 1908, 847/152; Mellander, *The United States in Panamanian Politics* 185-186.

[3] See Taft's address to Congress, *U.S. Foreign Relations,* 1912, p. xii; and Secretary Knox's commencement address at the University of Pennsylvania, June 15, 1910, entitled "The Spirit and Purpose of American Diplomacy," Knox Papers, Manuscript Division, Library of Congress, Box #4; and his address before the New York State Bar Association on January 19, 1912, "The Monroe Doctrine and Some Incidental Obligations in the Zone of the Caribbean." A good general account of the administration's Latin American policy is contained in Walter V. and Marie V. Scholes, *The Foreign Policies of the Taft Administration* (University of Missouri Press, 1970).

[4] Weitzel to SecState, February 28, 1910, 819.00/228; and March 19, 1910, 819.00/233. Weitzel reported that Porras was an active candidate for the Presidency and that Porras had told one of his friends that the reason he was going to visit Washington was not to settle the Costa Rican boundary dispute but to reveal to officials there that he was a Caucasian and not a Negro as many generally believed. Weitzel stated that Samuel Lewis, a member of the conservative branch of the Coalition Party was probably the best qualified for the presidency but had little support; the Attorney General, Santiago de la Guardia, was another able candidate but he was not popular with the voters.

[5] *Ibid.*

[6] Weitzel to SecState, March 4, 1910, 819.00/25; March 19, 1910, 819.00/233; Thomas Dawson, Division of Latin American Affairs, memorandum to Francis M. Huntington Wilson, Assistant Secretary of State, March 4, 1910, 819.00/225.

[8] Weitzel to SecState, March 3, 1910, 819.00/230. Weitzel observed: "At present it suits him [Mendoza's] purpose to appear retiring and conciliatory until he can get his bearings after the sudden shock which has made him Chief Executive, and estimate the force of sentiment for and against him both in Panama and the United States."

[9] *La Palabra,* May 21, 1910. This paper, whose Director was Eduardo Chiari, claimed that Mendoza was using funds from the national treasury to travel and campaign throughout the country. Ricardo Arías and Santiago de la Guardia were among the prominent conservative leaders. See also dispatch of R. S. Reynolds Hitt to Secretary of State, June 11, 1910, 819.00/236.

[10] Hitt to SecState, June 11, 1910, 819.00/236.

[11] Mendoza to Taft, June 14, 1910, enclosed in Charles D. Norton, Secretary to the President to Knox, July 2, 1910, 819.00/242; Taft to Mendoza, July 20, 1910, enclosed in Alvey A. Adee, Acting Secretary of State, to Marsh, August 2, 1910, 819.00/242.

[12] Marsh to SecState, July 28, 1910, 819.00/240. The Liberal Party won 20 of the

28 seats in the National Assembly. Supporters of the Conservative Party, led by Ricardo Arías and Santiago de la Guardia, abstained from voting.

[13] Marsh to SecState, July 28, 1910, 819.00/240; August 10, 1910, 819.00/247. The Chargé reported that Negroes regarded the racial issue as the most important question in the forthcoming elections. Articles in *El Duende* (August 7, 1910), a Negro paper, emphasized racial equality and urged Negroes to unite in supporting Mendoza against the white population. "This appeal to racial equality and Negro solidarity," Marsh noted, "is already having an unfortunate effect on the country as evidenced by a recent great increase in petty conflicts between the two races." And Hitt's Memorandum of August 12, 1910, 819.00/297.

[14] Marsh to SecState, August 5, 1910, 819.00/241. De la Guardia explained to Secretary Knox that Mendoza was violating the constitution by engaging in the practice of *continuismo*; de la Guardia requested U.S. intervention to prevent Mendoza's election or by not recognizing him if elected. De la Guardia to Knox, August 4, 1910, 819.00/244.

[15] Marsh to SecState, August 15, 1910, 819.00/253; and August 17, 1910, 819.00/248.

[16] Marsh to SecState, August 20, 1910, 819.00/251; and Marsh to Huntington Wilson, the Assistant Secretary of State, August 22, 1910.

[17] Marsh to SecState, August 26, 1910, 819.00/255 and /256; August 29, 1910, 819.00/258; August 30, 1910, 819.00/259.

[18] Huntington Wilson to Marsh, September 1, 1910, 819.00/259.

[19] Marsh to SecState, September 2, 1910, 819.00/265; Huntington Wilson to American Legation, September 3, 1910, 819.00/265.

[20] Huntington Wilson to Taft (in Beverly, Mass.) and Taft to Huntington Wilson, September 7, 1910, 819.00/275.

[21] Huntington Wilson to Taft, September 8, 1910, 819.00/284A; Huntington Wilson to AmLegation, Panama, September 8, 1910, 819.00/268A.

[22] Letter from twenty-one members of the Panamanian National Assembly to Taft, September 9, 1910, 819.00/271. Marsh's enthusiasm for Lewis was well-known. He viewed Lewis as the best man to help establish comparatively honest governmental reforms and to uphold U.S. prestige. Marsh wrote: ". . . if such intimation [of support] is given by the Washington authorities as was given two years ago, he can still be elected." Marsh to SecState, September 9, 1910, 819.00/270; and September 10, 1910, 819.00/272. On September 12th Marsh wrote: "If it is necessary for your dignity to publicly reprimand or discharge me for bungling or discretion I will take my medicine quietly but for the prestige of the Department and to prevent untold persecution and insult to Americans in Panama which will inevitably follow a Liberal victory under present conditions I implore my Government to insist on the election of Lewis." (819.00/274)

[23] Taft to Huntington Wilson, September 9, 1910, 819.00/285; and September 10, 1910, 819.00/283. Taft believed that part of the problem in Panama was due to Marsh's "fussy meddling and loquacity."

[24] *Ibid.*

[25] Taft to Huntington Wilson, September 12, 1910, 819.00/281.

[26] Taft to Mendoza, September 12, 1910, 819.00/279A; Marsh to SecState, September 14, 1910, 819.00/284; Huntington Wilson to Taft, September 7, 1910, 819.00/277A; and *The New York Times*, September 14, 1910.

[27] Dawson to SecState, October 5, 1910, 819.00/307; *The Panama Star and Herald*, October 6, 1910.

[28] *The New York Times*, November 4 and 17, 1910; the U.S. Minister in Costa Rica reported that rumors of annexation circulated throughout Central America.

U.S. Minister, San José, Costa Rica to SecState, November 10, 1910, 819.00/317.

[29] *The New York Times,* November 24, 1910. Taft also hoped to squelch the arguments of those who still claimed that a sea level canal was more feasible and cheaper to build than a system of locks. He declared that his visit confirmed the wise judgement of the engineers.

[30] Santiago de la Guardia and Ricardo Arías were especially active in their efforts to gain support from U.S. officials in Panama and Washington. See report of William Whiting Andrews, U.S. Chargé d'affaires, May 17, 1911, 819.00/327. Whiting declared that he hoped their mission to the U.S. accomplished nothing because "... it is evidently intended to entangle the U.S. in partisan politics here." The visit of these men to Washington prompted leaders of the Liberal Party to register a protest with the American Legation in Panama. Andrews to SecState, June 7, 1911, 819.00/335. Secretary Knox was confident that whoever was elected in Panama would respect treaty obligations with the United States. Knox to Andrews, July 11, 1911, 819.00/335.

[31] Taft to Knox, June 2 and 13, 1911, 819.00/331 and 333. Huntington Wilson believed that Arosemena was not constitutionally able to run for re-election and after Arosemena's conference with President Taft, wrote to Secretary Knox: "... our old friend Carlos is again stepping over the Department to try to use the U.S. for his family's interests." Huntington Wilson to Knox, June 20, 1911, 819.00/333.

[32] Taft to Knox, June 13, 1911, 819.00/333; Knox to Andrews, July 11, 1911, 819.00/335.

[33] Alvey A. Adee to Dodge, October 27, 1911, 123 D66 /93a, Personnel Records, U.S. Department of State Decimal File, 1910-1929; Dodge to SecState, November 19, 1911, 123 D66 /92, National Archives.

[34] Dodge to SecState, November 17, 1911, 819.00/347 and December 6, 1911, 819.00/349.

[35] Dodge to SecState, December 29, 1911, 819.00/352.

[36] Dodge to SecState, December 12, 1911, 819.00/350; and *The New York Times,* December 21 and 22, 1911.

[37] De la Guardia to Taft, December 27, 1911, 819.00/361. He predicted that the nation would be ruined if it fell into the hands of the Liberals with their "barbaric passions" and pleaded that "all minds would recover calm by a simple word from your authorized lips." State Department Memorandum, January 2, 1912, 819.00/352 and January 11, 1912, 819.00/355.

[38] Dodge to SecState, January 9 and January 25, 1912, Knox Papers, Box #33, Manuscript Division, Library of Congress. "I hesitate to believe," Dodge observed, "that President Arosemena's election is necessary to preserve Panama from ruin."

[39] Huntington Wilson to Taft, March 21, 1912, 819.00/386a; Charles D. Hilles, Secretary to President Taft, to Secretary Knox, March 22, 1912, 819.00/380; and Henry L. Stimson, Secretary of War to Ricardo Arías, April 4, 1912, 819.00/397.

[40] Arías asked Taft to "... help us correct our political imperfections. ..." Arías to Taft, April 15, 1912, 819.00/397; Taft to Arías, April 18, 1912, 819.00/377.

[41] Dodge to SecState, March 18, 1912, 819.00/382; Dodge to SecState, April 25, 1912, 819.00/387; /391; May 3, 1912, 819.00/389; and May 9, 1912, 819.00/393; Memorandum of the Latin American Division, May 7, 1912, 819.00/401; Huntington Wilson to Taft, May 10, 1912, 819.00/396; and Huntington Wilson to AmLegation, Panama, May 13, 1912, 819.00/393; *The New York Times,* May 4 and 5, 1912. Porras' elements appeared to have control of the registration boards of various municipalities while *Unión Patriótica* had the support of the govern-

ment which was in control of the officials and police units in the districts and provinces.

[42] A total of 228 supervisors for the various districts were drawn as follows: 50 from the Isthmian Canal Commission; 50 from the Marine Battalion; and 128 from the U.S. 10th Infantry Regiment. Dodge to SecState, May 18 and 20, 1912, 819.00/400 and /405; Dodge to SecState, June 25, 1912, 819.00/422; and *The Panama Star and Herald,* June 16, 1912.

[43] Dodge to SecState, June 25, 1912, 819.00/422. During the municipal elections on June 30th some supervisors complained of problems with the local police in their districts. One supervisor at Los Santos stated that police officials circulated throughout the district intimidating the people from voting. Numerous other examples of police interference were cited. Dodge to SecState, July 1, 1912, 819.00/427.

[44] Dodge to SecState, July 1 and 2, 1912, 819.00/427 and 418.

[45] Dodge to SecState, July 1, 1912, 819.00/427.

[46] For a summary of the White House Conference with Arías, Taft, Knox, and Doyle, see the latter's Memorandum of July 1, 1912, 819.00/420.

[47] Huntington Wilson, Memorandum to Latin American Division, July 8, 1912, 819.00/425; and Huntington Wilson to Taft, July 8, 1912, 819.00/424.

[48] Ricardo Arías to Taft, July 9, 1912, 819.00/428; Doyle's Memorandum, July 11, 1912, 819.00/431; and Knox to AmLegation, Panama, July 11, 1912, 819.00/428.

[49] *The Panama Star and Herald,* July 14, 1912; *Panama Morning Journal,* July 14, 1912; Dodge to SecState, July 14, 1912, 819.00/429 and /430; July 20, 1912, 819.00/434.

[50] *The Panama Star and Herald,* July 16, 1912; *The New York Times,* July 6 and 8, 1912; McCain, *The U.S. and the Republic of Panama,* pp. 81-82.

[51] *The New York Times,* July 8, 1912. The editorial reflected some interesting attitudes: "That this hostility should exist, as it certainly does, in spite of pretty sentiments so often expressed in the diplomatic circles of both the great and the little Republic, is from one point of view a proof of stupidity and ingratitude on the part of the Isthmian people. Not only do they owe the establishment of their government to the United States, but they are well aware that it would not last a week if they were left to defend themselves from angry Columbia, unreconciled to the loss of her most valuable national asset. They know too that the United States has given them prosperity as well as political safety, and that the amazing improvement in their conditions came from the same source."

[52] Dodge to SecState, July 27, 1912, 819.00/438; W. W. Andrews, Chargé d'affaires ad interim, to SecState, October 8, 1912, 819.00/454.

# JOHN WESLEY BUTLER AND THE MEXICAN REVOLUTION, 1910-1911

By Richard Millett

From the time of his arrival in Mexico in 1873 until his death in 1918 the Reverend Dr. John Wesley Butler played a major role in the establishment and development of Methodism in Mexico. His father, William Butler, was the first director of the work of the Methodist Episcopal Church in Mexico, so from his earliest years in the Republic John Wesley Butler had intimate connections with the leaders of that nation's tiny Protestant community as well as an established place within Mexico City's American colony. When John, himself, became director of Methodist Episcopal work in Mexico he expanded these contacts and established new ones in both Mexico and the United States. By 1910, on the eve of the Mexican Revolution, he was one of the best known, and undoubtedly most knowledgeable, members of the American community.

Butler's activities in Mexico were not confined to preaching or to routine matters of administration. Under his direction Methodists operated some of the best primary, secondary and vocational schools in Mexico. He also strove to expand Methodist publication activities within the Republic and to publicize the work of the mission in the United States. In furtherance of this latter goal he authored several books including *History of the Methodist Episcopal Church in Mexico.*[1] It was not in Butler's published works, however, but in his voluminous and detailed correspondence in which he left us his most valuable contributions to an understanding of revolutionary Mexico. Butler's position within the Methodist church and his long residence in Mexico gave him considerable influence within the American community while his church work led him to travel constantly throughout the central area of Mexico and brought him into contact with Mexicans representing all varieties of social classes. His correspondence reflects this broad experience as well as providing insights into the attitudes and problems of American residents in Mexico during the violent years of the Revolution.

Living in Mexico City, John Wesley Butler shared the impression of most of the capital's inhabitants that the initial uprisings in favor of Madero were of little significance. On December 28, 1910, he wrote a minister in Nebraska that "The disturbance is nothing like what it is represented in the American papers, indeed I am expecting that the government troops will soon be surrounding the rebels up in the state of Chihuahua and will give the whole movement its death blow."[2] A month later, however, he took the uprisings much more seriously. Writing to the Methodist offices in New York he observed:

> While I still have a strong conviction that the government is master of the situation I am obliged to admit that matters look more serious today than at any time in the past. The revolutionists in the state of Chihuahua seem to be taking advanced ground and it evidently means one of two things. Either that they determined to risk all in the hope that if they could take Juárez and Chihuahua they might induce many who up to date have vacilated about joining them and thus acquire new strength or that their present move means that they have such strength as the public knows nothing of and that the present move is a signal for uprisings in other parts of the country. . . . As I said in a previous letter, I think it would be well if the office would keep us supplied with remittances two or three months in advance, with the understanding that we would only cash monthly. This would protect us in case the mails are disturbed. Some of our people are getting very uneasy.[3]

As director of Methodist work in Mexico, Butler felt keenly his responsibility for the safety of both American missionaries and national workers. The annual conference of the Methodist Church in Mexico was scheduled to meet in Orizaba, but by early February, 1911, the wisdom of a gathering that far from the national capital became increasingly questionable. Writing to an American missionary in Puebla, Butler noted that:

> It seems to be quite impossible here to obtain reliable news concerning the revolution. The rumors today, however, are very disquieting. I do not know what it may mean that the wires of the Veracruz Railroad were cut yesterday near Orizaba nor the reason why four rurales were killed near your city. . . . I do not wish to disturb unduly your people, but it may be best for us to anticipate a little what we would do in case of some serious trouble. . . . If it should become necessary for us to act it might be necessary to do so very quickly. In case of disturbance it would be so much easier for us to meet in the capital probably and easier to get back from the capital, than to meet in and return from a place like Orizaba which depends entirely upon one line of railway. Then, should serious trouble break our own church has been with them. Pascual Orosco [sic], the railway, we might have the conference on our hands there for a week or ten days beyond the necessary time.[4]

As revolutionary disturbances continued to spread, Butler became increasingly concerned. Throughout February he continued to express his faith in the ultimate triumph of the forces of President Porfirio Díaz, but by March 1, 1911, this conviction was becoming quite shaky. He informed the New York office that:

I should also say to you that the political situation today looks graver than it has for any time since the beginning of the revolutionary movement. We have been hoping that Mr. Limantour and General Reyes would come back from Europe to help support the present administration, but at the present moment there is no reliable information about either of them coming in the near future. In the meantime, the unrest is certainly spreading and today there is a rumor of a persistent character that the National Railway is likely to be interrupted very soon. As you already know, of the three lines coming into Mexico, two of them have been out of commission for several days, for as soon as the government troops make repairs in one place the revolutionaries appear in another to burn or blow up bridges.... I am also informed that the officers of the National Railway have arranged to send their people out by Veracruz where they take steamer to New York in case the threatened interruption takes place. As these people are in very close touch with the government I fear this means something serious.... I will keep you informed just as fully as I can, though mails will be uncertain and longer in transition if we are obliged to send via Veracruz. In addition to this, it is persistently reported that there is a large band of insurgents in the State of Veracruz and if the government should fail to make the move we have all been looking for in the line of conciliation, the Veracruz Railway may also be cut and possibly we may be without any communication with you for some time.[5]

Reports of the disturbances in Mexico led many Methodists in the United States to write anxiously to Butler, expressing concern over his safety and seeking additional information as to the actual state of affairs. In his replies, Butler repeatedly expressed his unhappiness with exaggerated accounts of uprisings published in the North American press and continued to support the government of General Díaz. He recognized, however, some of the faults in the existing administration. In March, 1911, Reverend Claudius Spencer of Kansas City sent a long list of questions regarding the causes and probable outcome of the revolution, promising that he would keep confidential the source of any information he might receive. Emphasizing the need for such confidentiality, Butler replied in a long and detailed letter which revealed some understanding of the actual sources of discontent within Mexico, but which also illustrated both his strong support for the existing administration and his deep hostility to Roman Catholicism. In listing the causes of the revolution, Butler placed some blame upon ambitious politicians and concern over the advanced age (80) of President Díaz. The major problem, however, he believed lay in the actions of state governors whom Díaz had kept in power and who had become "quite corrupt." These

governors had, in turn, appointed "arbitrary and hard masters as Jefes Políticos" and these local officials "have oppressed the poor, wrung taxes unmercifully out of the people, forced many against their will into the army and committed other abuses." General Díaz was blamed for "having stood by some of these fellows too long," but Butler noted that several of the governors had been or were about to be removed, an action which he hoped would eliminate much of the cause for the revolt.[6]

The Reverend Mr. Spencer was concerned about the possibility of American intervention in Mexico, a fear based in part upon President Taft's decision to strengthen Army forces along the border. Butler defended the President's actions, writing Spencer that:

> The presence of a large American force along the frontier will be a great help to the administration; filibustering will cease as also the passing of arms and ammunition across the Río Grande. In addition to that fact, there is no doubt that the presence of Uncle Sam's forces so near the Mexican territory is a pretty good tonic for the Mexican government. . . . Of course, yellow papers here and in the United States are trying to make a great deal out of the presence of our Army in Texas; indeed many of them would be glad to force the hand of Taft as they did of McKinley to bring about war, but I believe the understanding between the two Governments is very clear and the relations most friendly and that there will be no war between the two countries.[7]

Spencer was also concerned about the affect of the revolution on Methodist work in Mexico. In responding to this concern, Butler's anti-Catholic attitudes became quite apparent. He wrote:

> I do not thus far see that our work be in any way affected by the outcome. Thus far our people and our properties have been unmolested. A few protestants here and there among the insurgents have been singled out by the clerical papers who have been inclined to make some capital out of their presence with the insurgents, but as far as I know no one connected with our own church has been with them. Pascual Orosco [sic], the principal General of the rebel army in the State of Chihuahua, is a protestant and was baptized in the Congregational Church in the capital of that state. . . .
>
> In case there should be a complete change in administration I do not think the administration would be unfavorable to our work. I believe the Roman hierarchy would be glad to see Mexico annexed to the United States. I do not believe that the rank and file of the clergy in this country share this wish, but the hierarchy knows right well that their church could have

greater freedom under the laws of the United States than they now enjoy under the laws of Mexico, but this would be a calamity for our people at home and our work here.[8]

As March progressed and faith in the Díaz administration's ability to control the situation declined, fears over possible American intervention became a prime concern of Butler's Writing to New York in March 27 he declared:

> The most serious problem we now face is the possibility of American intervention. I sincerely hope and am inclined to believe that this is not coming. I know a great many people here believe that we will have it shortly. I rather incline to think that the American Government will find some quiet and perhaps secret way to assist the government out of their present dilemma. However, intervention is, of course, among the possibilities, but it would be a bad thing for us and our work. . . . The Superintendent of the Baptist Mission called to see me to talk about the matter and advisability of the Americans in his mission retiring from the country at once. Soon after one of the leading Presbyterian missionaries called to discuss the situation.
>
> With all the light I have now, the thought of American missionaries going to the States for safety does not seem to me to be right and unless I were advised most emphatically by the authorities or the representatives of the American Government to do so I should not think of it for one moment. The place of duty may not always seem to be the place of safety, but in this case it certainly is the place I should choose. However, I do not wish my personal feelings to stand in the way of the safety of American missionaries in our field. Including those of both societies and the children, there are 42 of us in the field.
>
> Now you know, as well as I, that Bishop Cranston is a diplomat and a statesman, who is well known and highly esteemed at headquarters. Could not you and he call upon President Taft and protest against American intervention. I happen to know that not only our own missionaries, but the missionaries of several Evangelical churches in this country to the number of about two hundred think that intervention is the worst thing that could possibly happen. In case the President is not inclined to listen to this protest perhaps you or the Bishop could learn from him whether such intervention is to occur and how soon. Then I would like that the office instruct me as to what advice I should give to the missionaries who might desire to seek a place of safety North of the Río Grande. . . .[9]

Without waiting for the results of his appeal for church pressure

against intervention, Butler sought out an interview with the American Ambassador, Henry Lane Wilson, in an effort to learn for himself whether or not intervention was imminent. Both the Ambassador and a special State Department envoy, then in Mexico, emphatically denied that there would be any intervention, a response which left the Methodist leader feeling "considerably relieved."[10]

This sense of relief did not last long. Disburbances began to spread into the central valley of Mexico where much of the Methodist work was located. The capital became a hotbed of conflicting rumors leading Butler to note that "it is difficult to get at the truth. The government insists that the situation is improving, but still the war goes on."[11] By the end of March, small bands of rebels had actually appeared within the boundaries of the Federal District, increasing the missionaries anxieties. Butler estimated that the government had dispatched so many of its troops to other parts of the nation that there were only about two thousand troops in the Federal District. This was at a time when support for Madero within the capital was growing visibly. Another upsetting circumstance was the persistence of rumors that the light and water supply might soon be cut off. Butler took all possible precautions to prepare for any contingency, but admitted that he did feel considerable anxiety, partly because "there is a great deal of anti-American feeling and should the present administration fall suddenly and riot run lose in this town there might be attempts of violence against foreigners and especially Americans. Thousands of ignorant people cannot understand Uncle Sam's explanation for the presence of his troops in Texas. Herein lies the chief danger for Americans residing in Mexico."[12]

The opening of peace negotiations on April 19, between the Government and the forces of Francisco Madero, came as most welcome news to Mexico City's American community. Butler expressed great hope for the negotiations and the restoration of peace, which, he declared, "cannot come too soon for any of us," but he remained anxious about conditions in outlying areas. The city of Puebla, where one of the largest Methodist schools was located was an object of special concern as rebel forces had attacked a town only thirty miles away. As a precaution he instructed the missionaries in that city to "have the American flag ready to hoist over both our buildings in that city if anything like an attack is made."[13]

While the peace negotiations produced a temporary truce in the State of Chihuahua they evidently had little influence of revolutionary activities in other areas. In many areas Methodist work was disrupted and at times the lives of individual ministers were actually placed in danger as Butler graphically described in an April 28th letter:

> While negotiations for peace are going on up in the Northwest, disturbances in other parts of the country seem to be spreading. This is particularly true in the states of Guerrero and

Puebla and in the latter state our workers are being annoyed considerably. Brother Aguilar, our pastor in Acatlan, has had to leave his appointment and come into the city of Puebla as his circuit is in the hands of the rebels. . . .The case of Brother Espinosa is, however, more serious. He is our pastor in Chietla of the Puebla District. On the 18th of this month the insurrectos entered his town and early in the morning some of the leaders made their way to his house and arrested him. They obliged him to go over to the chapel and open the door. When they had him inside they wanted him to confess where he had hidden his arms and ammunition. When he persisted that he had neither then they demanded of him a loan of one thousand dollars which, of course, he did not have. Then they tied his hands behind him and marched him out of the town for the purpose as they said of shooting him unless he paid over the money. Two of the brothers who had been notified came to see what was going on and were also arrested and tied up with Brother Espinosa. As they marched the three men toward the edge of town they were met by the mayor, who is a protestant, and who at once collected from the brethren $21 which they gave to the chief of the insurrectos who finally consented to let our pastors and the two brothers go free with orders that they could not again open the chapel until they had received permission from the revolutionary forces. . . . Brother Espinosa has moved over to Matamoros to remain until things quiet down.[14]

While peace negotiations dragged on in the North, the government's position steadily deteriorated in other areas. By early May the capital, itself, seemed in danger of attack. A May 6th letter to New York headquarters reflected the growing precariousness of the Government's military position:

. . .rebel forces are reported on three sides of Mexico City and at distances varying from fifteen to forty miles, though it is said that yesterday a small detachment of these came to the very outskirts of the city. We had two riots inside the city which were readily handled by the police. It was said that the President's house was stoned. . . .

Puebla is probably in a more critical condition even than we are. Five thousand rebels are scattered around the hills within two days march of the city. Guanajuato is also considerably alarmed. . . . Orizaba seems quiet but for the strike on the large mills. Should the disaffected workmen join hands with the rebels things might become serious there. . . .

Now all this means, of course, a certain amount of danger for our people, but nothing like the danger which will beset us if the American Government decides on intervention. Then any

American, whether missionary or merchant, might be the victim of a patrotic or religious fanatic. . .

I am quite confident that all our workers are acting prudently and bravely under the present ordeal and I think they will do so even should the situation become more acute. I have yet to meet the first one who is inclined to 'show the white feather' though all recognize the danger of the situation.

The missionaries of the other boards, with few exceptions, I think feel very much as we do. We have had several conferences here at our headquarters and we are to have another at five o'clock this evening. This, like the others, is called by request of the Superintendent of the Baptist work, who seems more uneasy than any of the rest and is inclined to advise us all to leave the country.[15]

The breakdown of peace negotiations and the fall of Ciudad Juárez to revolutionary forces dashed the last hopes of those who wished to see Díaz retain power. By May 13th, Butler was reporting that Mexico City, itself, seemed on the verge of revolution:

The situation here in the city of Mexico . . . continues with even keener tension, if possible. All bar rooms and grocery stores where liquor is sold were ordered closed at two o'clock today, and they are so to remain until Monday. Police force has been doubled throughout the city and an immense reserve force is on hand in all police headquarters, ready to be called on. In some of the older parts of the city soldiers are keeping watch on some of the churches and public buildings. It is also said that in a few cases rapid fire guns have been lifted to the top of the buildings and placed in position for action. I do not think this is so much from an expected attack from outside as the fear that the working men may go on strike today and make trouble.

Communication is entirely cut off from Oaxaca and has been for about a week. Anticipating this trouble, I sent some emergency funds to the Superintendent of that District which I hope will be enough to keep them from suffering for a couple of weeks. . . .

The foreign Ambassadors and Ministers have been in consultation and it is said that on representation to the Mexican Government they have had arms and ammunition put within their reach for such foreigners as may wish to protect their lives and property in case of an extreme emergency. I think, however, that it is not true that President Díaz advised foreigners to arm themselves, but the Ambassadors did ask the Minister of Foreign Relations if the government would give

them arms and ammunition in case of need, to which he answered affirmatively.

When we rebuilt the front of our mission house fifteen years ago we left off some of the iron chains and bolts, which seemed to be relics of the middle ages. Hence, this week we are having some extra bars made by which we can secure our front doors and windows from being broken open in case of a mob.

The Hidalgo Railway, which goes out into the heart of our Eastern District, was cut day before yesterday and travel now is impossible beyond Tulancingo except on horseback and of course under present conditions this would not be very safe.[16]

The last days of Díaz regime proved more emotionally trying than physically dangerous for John Wesley Butler. Reports of fighting, rioting and interrupted communications came in from all parts of Mexico. The mining city of Pachuca, capital of the state of Hidalgo and the site of one of the largest Methodist schools, was a source of particular concern. Rioting had broken out there on the 15th of May. The following noon Butler received a telegram from the missionaries there stating, "We are all right after a terrible night. Several windows broken."[17] Once peace was finally restored Butler hurried to Pachuca to survey the damage in person. His account of events in that city is an excellent illustration of the government's state of collapse in mid-May, 1911:

No North Atlantic liner ever came out of a hurricane looking worse than Pachua looks today. Hardly a building in the center of the town escaped without some injury. Of course the looting was done by a mob and not by the insurgents. The miners heard that two thousand rebels were approaching the city so they filled up on liquor and started in to have a time of their own. A distressing fact connected with the whole business is that some of the wealthiest families in the city joined the mob and participated in the looting.... The next day 150 insurgents entered and restored order. It is amusing that 150 men could capture a city of forty thousand and strike terror throughout the entire state and cause it to spread even to the national capital, but the small band seems to have had some very brave men in it. They marched the governor to the telegraph office and compelled him to send a message to the Federal Government that two thousand rebels had captured the place and would soon march on the City of Mexico. This telegram ... led the government to fear greatly for the national capital. They at once sent out a few miles into the country and destroyed the three railroads running from Pachuca here and it is simply amazing to know after all there were but 150 men, less than 100

of whom were mounted. The young man who led the band is only 22 years of age. When he started out two months ago from his home in the mountains he took the title of captain, a month later when he captured Tulancingo he received from the Madero camp a commision as colonel, on capturing Pachuca, the capital of the state, two weeks later he was made general. From all I can learn this is about the size of most of the insurgent camps throughout the country and the wonder of their many successes is only explained by the fact that the people of the country sympathized with the revolutionary movement.[18]

A provision peace treaty was finally signed on May 21 and four days later President Díaz formally resigned, turning over power to a provisional administration headed by Foreign Minister Francisco León de la Barra. Madero had agreed to this arrangement by which de la Barra would govern until after new elections were held in October. Madero was seen as a virtual certainty to win these elections and assume the presidency in November. While welcoming the end of hostilities, Butler was, from the first, somewhat skeptical of Madero's ability to replace Díaz, observing that "Madero is quite an orator and seems to have a magnetic personality, but whether he has enough backbone and other governing qualities for the job remains to be seen."[19]

The Methodist leader had refrained from personal complaints during the trying days which preceeded the resignation of Díaz, but with peace apparently restored, at least for the moment, he confessed that "the strain is very wearing. This constant writing and telegraphing and otherwise trying to look after the interests of those in trying positions is not conducive to the best kind of health." There were satisfactions which evidently made this strain worthwhile for Butler proudly observed that "none of our missionaries have wished to leave their posts," and rather smugly added "the Superintendent of the Baptist Mission and all his family left the country nearly two weeks ago and he tried to get some of the rest of us to go with him. Some of the Presbyterians have also gone."[20]

While rejoicing in the restoration of peace, which he likened to "the passing of a terrible storm with all its clouds and the coming forth of the glorious sun," Butler continued to express regret for the fate of Díaz, writing on May 26 that "notwithstanding his mistakes, he is the greatest man our country has produced in our day. He will be more highly esteemed a year hence than he is now. His great mistake was in allowing himself to continue in office last year.[21] When Díaz left for Europe a few days later, the Methodists sent him a telegram thanking him for "the many courtesies he extended to us and our mission during his long reign" and "assuring him of our prayers for a safe journey."[22]

Expectations of a peaceful transition period between the Díaz and Madero administrations did not last long. By June 3 Butler was complain-

ing that "the científicos are bolting Madero's program. Indeed, they never have been in sympathy with it. These same científicos are the men who would not allow President Díaz to resign last year when he wanted to. It is a very serious question as to whether Madero will be strong enough or not to put down factional disturbances and to lead on to harmony and prosperity."[23]

Dr. Butler's doubts about the prospects for Madero's success came as much from his belief in the immense tasks facing the new leader as they did from any reservations he might have had concerning his abilities and policies. For his own part, the American missionary was convinced that the revolution had opened up great opportunities for the protestants and constantly urged his fellow Methodists to strengthen their support of work in Mexico. He wrote one Methodist Bishop that:

> The armed revolution is over, but the revolution must now go on and consumate its work along all lines for the good of the people. Madero is the hero today and if he maintains himself properly until next October, he will doubtless be elected President. Predatory bands found here and there throughout the country must be dispersed. The great mass of Mexican voters must be instructed in the privileges and responsibilities of suffrage. Contending factions must be reconciled or at least taught to respect each other. A thousand and one things must be done in the next three months in this country. We hope for the best, but poor Mexico needs above everything else an open Bible, an untrammeled pulpit and free schools. The revolution has brought to us a supreme opportunity, such an opportunity as the present Protestant Christianity has not seen in this country for sixty years. Had the church at home been alive to the opportunity after disestablishment of the war of reform, half of the Republic might have been under Protestant influence today. But now the door is opening again and we must do something to greatly strengthen our work.[24]

By the end of June Butler's hopes of Madero's success has increased considerably. He praised him as "a decided Liberal with strong tendencies toward Protestantism" and added "I am assured his wife shares the same views." He was further encouraged by the expressed optimism of most of the businessmen with whom he came in contact.[25] A few weeks later, however, this optimism had given way to renewed anxiety as armed clashes occurred in several parts of the nation. He warned New York that:

> ...we are getting dangerously close to a state of anarchy throughout the country... Yesterday in Tlaxcala, just this side of Puebla, the disturbances were so serious that a reception which had been offered Mr. Madero on his way to Puebla had to be called off and his train was halted and put under guard

some miles this side of its destination. Trouble is also reported in Oaxaca and other states. The facts seem to be that the Maderist forces are constantly clashing with the regular army and there seems to be at the moment no one who has sufficient influence to keep things quiet. Mr. Madero has his hands more than full and has yet to prove he is master of the situation.

Perhaps one of the most serious evidences of the situation is that a secret meeting of six or eight of the revolutionary leaders was held in this city night before last. It was an all night session and these leaders have presented to Mr. Madero the claim that he has gone back on the principles which led to the triumph of the revolution and they further say that if he does not retrace his steps by shaking off a certain clique of advisors which are surrounding him and which they claim belong to the Díaz administration or to the followers of Reyes and call to his aid those who sacrificed fortune and risked life to make the revolution a success that they will again take the field. News of this meeting has not yet gotten into the papers, but my information is reliable.[26]

July 31 witnessed a major outbreak of violence in the mining town of El Oro. The miners had rioted, all foreigners had hurriedly left the town by special train and federal troops had been dispatched to restore order, which they did by killing eleven of the miners and wounding thirty. The immediate cause of this outbreak was attributed to the work of a German anarchist. The root causes of the troubles, however, went far beyond this and Butler warned that "many leaders of the late revolution went about the country preaching to the people that the natives were entitled to the same conditions as foreigners in the mines, on the railroads, etc., and these fellows have made a lot of trouble that it will take a long while to get over and we may never get over it."[27]

By the end of August a measure of tranquillity had been restored which Butler believed would endure until after the elections. What would follow Madero's inauguration, however, was in his view "impossible to predict." The most positive aspect of the situation he felt was that the revolution had "set people thinking and reading." The Reform laws of the Juárez period had been reprieved and freedom of the press and of public speech were being emphasized. All of this gave the Methodists "a golden opportunity to circulate the Bible, to scatter religious literature and to plant evangelical congregations everywhere."[28]

The Methodist leader was further encouraged by the results of the state elections held in the summer. Of special interest was the election of a son of former President Benito Juárez as Governor of the state of Oaxaca, one of the centers of Methodist work. Butler was overjoyed that Juárez received 175,000 votes while "the conservative candidate for whom the Archbishop put forth special effort received only about three

thousand votes."[29] Meeting with the "governor's right-hand man" Butler emphasized the Methodist's desire to "see that every last man and woman in the state received a good liberal education." The governor's aide seemed highly appreciative of such efforts and even attended one of the services which Dr. Butler conducted during a trip to Oaxaca, leading the American missionary to predict that the new state administration would "put a stop to the persecutions which our people have been suffering from local authorities and with God's blessing we will be able to secure glorious victories."[30]

The presidential elections in October went off quietly, producing an overwhelming victory for Madero and his vice-presidential candidate, José María Pino Suárez. They were inaugurated the following month. In several letters, written late in 1911, Butler summed up his views of the problems and prospects facing the new administration. From the Methodist point of view, he found the outlook relatively bright, characterizing the Madero administration as "very favorable to us" and adding that it was largely made up of "genuine liberals who believe in the law of reform and want to see us succeed."[31] Political prospects, however, were much less certain. The continued resistance of Emiliano Zapata and his followers in the South was a major obstacle, but in Butler's view "a still worse feature of the situation is that here and there over the country are small groups of men claiming to be Zapatistas, but whom in reality seem to be nothing more than banditti."[32] Dealing with these would be one of the major tasks facing the new administration.

Internal political opposition and relations with the United States were also formidable problems for Madero's administration. Butler's views in these areas were summed up in a letter written November 25, 1911:

> . . . Madero has been elected and inaugurated as President and very naturally he ought to have a fair chance to show what he can do. I think this is the attitude of the American government . . . Madero has a most difficult task before him. The remnants of the old regime and the country are very slow to give any aid. The followers of General Reyes are putting as many obstacles in the way as they possibly can. I am still of the opinion, however, that Reyes' followers are not very numerous. I am inclined to think that the most serious difficulty which Madero has to handle is that created by his own dissatisfied followers. There seem to be a large number of those who were with him in the recent revolution who are not satisfied and herein lies the most serious danger to the peace of the country. I fear that some of these will not hesitate to stir up strife, even at the risk of American intervention. We hope and pray that Mr. Taft will be as wise and firm now as in the past and if so it will help settle our problems here.[33]

With the inauguration of Madero the first phase of the Mexican

revolution came to an end, but, as predicted, Mexico's problems were still far from resolved. Opposition from conservatives and from some of Madero's own original supporters, conflicts with Zapata, social and economic strife, and the ever present spectre of United States intervention would keep Mexico in violent turmoil for the rest of the decade. For John Wesley Butler and his fellow Methodists the future held even more danger and destruction than they had witnessed to date. Butler continued to faithfully record these events, to lobby against intervention and to strive to protect the missionaries and national workers within his jurisdiction until his death in 1918. Thanks in good part to his leadership, the Methodist Church emerged from the revolution as one of the most influential segments of Mexican Protestantism, a position it has maintained up to the present.

## NOTES

[1] John Wesley Butler, *History of the Methodist Episcopal Church in Mexico* (New York: Methodist Book Concern, 1918).

[2] John Wesley Butler to Reverend C. R. Beebe, University Place, December 28, 1910, Archives of the Methodist Episcopal Church of Mexico, Mexico City. Hereafter cited as M. A.

[3] Butler to Dr. H. Stuntz, Methodist Headquarters, New York, February 1, 1911, M. A.

[4] Butler to Brother Bassett, Puebla, Mexico, February 7, 1911, M. A.

[5] Butler to Stuntz, March 1, 1911, M. A.

[6] Butler to Reverend Claudius Spencer, Kansas City, Missouri, March 15, 1911, M. A.

[7] *Ibid.*

[8] *Ibid.*

[9] Butler to Stuntz, March 27, 1911, M. A.

[10] Butler to Stuntz, March 28, 1911, M. A.

[11] Butler to Stuntz, April 1, 1911, M. A.

[12] *Ibid.*

[13] Butler to Stuntz, April 19, 1911, M. A.

[14] Butler to Stuntz, April 28, 1911, M. A.

[15] Butler to Stuntz, May 6, 1911, M. A.

[16] Butler to Stuntz, May 13, 1911, M. A.

[17] Quoted in Butler to Stuntz, May 16, 1911, M. A.

[18] Butler to Stuntz, June 2, 1911, M. A.

[19] Butler to Dr. MacRossie, May 24, 1911, M. A.

[20] *Ibid.*

[21] Butler to Stuntz, May 26, 1911, M. A.

[22] Butler to Stuntz, May 31, 1911, M. A.

[23] Butler to Stuntz, June 3, 1911, M. A.

[24] Butler to Bishop J. E. Robinson, June 22, 1911, M. A.
[25] Butler to Mr. F. A. Boyd, June 27, 1911, M. A.
[26] Butler to Stuntz, July 13, 1911, M. A.
[27] Butler to Stuntz, August 4, 1911, M. A.
[28] Butler to Reverend D. I. Pierson, New York, August 29, 1911, M. A.
[29] Butler to Stuntz, September 12, 1911, M. A.
[30] *Ibid.*
[31] Butler to Stuntz, November 9, 1911, M. A.
[32] Butler to Stuntz, November 3, 1911, M. A.
[33] Butler to Stuntz, November 25, 1911, M. A.

# CARLETON BEALS ON THE AMBIGUITIES OF REVOLUTIONARY CHANGE IN MEXICO AND PERU*

By John A. Britton

A neglected aspect of the history of inter-American relations is the work of United States journalists in Latin America in the early twentieth century. Latin America's proximity to the United States and the growth of hemispheric economic and political ties helped to bring journalists south of the Rio Grande for first hand study. As a freelance reporter, Carleton Beals lived in Mexico through much of the 1920s and 1930s, and also traveled extensively in Latin America including Peru. His writing on Mexico and Peru was a prominent part of the contribution of the first generation of experts on twentieth century Latin America from the United States. Widely known as an outspoken anti-imperialist and a supporter of revolutionary movements, Beals gained less attention for his critical and, at times, negative analysis of revolutionary change. A substantial portion of this paper is devoted to this often ignored part of Beals' thinking.

Much of Beals' writing has relevance to the more recent work of social scientists and historians, particularly on the topic of social change in rural areas. Of course, Beals did not use the terminology developed by social scientists after 1950, but he did address some of the same issues that are prominent in the literature of modernization. One example concerns the problems associated with rapid modernization in peasant societies, a subject of much disagreement among social scientists. Many investigators in this area assumed that modernization through the diffusion of new technology, market economies, and literacy axiomatically meant a better way of life for the local people.[1] However in the 1960s and 1970s many scholars began to question the validity of this and related assumptions.[2] The purpose of this paper is to explore Beals' precursive studies on this issue in Mexico of the late 1920s and Peru of the 1930s.

In this essay, revolutionary change is to be viewed as essentially an elite-instigated process directed toward the masses. The revolutionary elites concoct their social reform programs within the broad context of national, political, and economic considerations. The masses, on the other hand, tend to have a narrow, parochial point of view and often find the reforms to be disruptive.[3] Beals was concerned about the

*Research for this article was funded in part by grants from the American Philosophical Society and the Francis Marion College Faculty Research Committee.

impact of rapid change on the rural masses and recognized that they formed a relatively weak segment of society in both Mexico and Peru. He was skeptical about the intentions of the revolutionary political elites in their dealings with the peasantry.

Beals lived in Mexico for most of the decade from 1923 to 1933 and was fascinated by the interplay of politics and social change that centered around the revolutionary government. Presidents Alvaro Obregón 1920-1924) and Plutarco Elias Calles (1924-1928) sought to achieve political stability and economic prosperity through the enaction of reforms to benefit peasants and workers. In terms of rural Mexico, these reforms included the distribution of land to peasants, promotion of new agricultural techniques, and expansion of public education. Virtually all of these programs were conceived and carried out from Mexico City under the watchful supervision of Obregón, Calles, and other members of the political elite.[4]

Beals studied the interaction of revolutionary change which originated in Mexico City and was based on the native conservatism emanating from the countryside. The Indian and mestizo peasants' attachment to their past made it an important factor in the Revolution. Beals weighed the violence and brutality of the Aztecs against the "generous, hospitable, industrious" nature of the Mayas and Zapotecs, and found the Indian heritage predominately benign.[5] He also concluded that this heritage was, to an extent, superior to the rapidly expanding modern, industrial civilization. Beals distinguished between the sympathetic cultural elite that appreciated the Indian past and the aggressive political elite that pushed for rapid change. The social and economic reforms fostered by Obregón and Calles threatened Indian-mestizo culture. In Beals' writing he struggled to reconcile the conflict between the way of life of the rural masses and the revolutionary goals of the political leaders.

Beals saw a need for certain types of economic and social improvements in rural Mexico. He believed that the campesino must be taught to apply new scientific methods of agriculture. The division of large estates into peasant-operated collective farms was essential, but, in the last analysis, agrarian reform had to result in the "modernization of the ejido system." By "modernization" Beals meant the use of irrigation, dry farming, crop rotation, and other advanced techniques by literate and informed peasant farmers.[6] The food requirements of a rapidly expanding urban population demanded that such changes be implemented quickly.[7] At the end of the decade, however, Beals found that the peasants still lacked the basics in knowledge, land and government support to achieve these purposes.[8]

Although he felt changes were imperative, Beals sensed a danger in the expansion of the governments' social and economic programs into rural Mexico. In an historical argument, Beals cited the disruptive economic changes promoted by the government of Porfirio Díaz (1876-

1910) as acting to "shatter the social order" of the countryside.[9] In the Revolution he saw a direct conflict between the largely Indian culture of the masses and the European and North American culture of the nation's elite groups. He further suggested that this conflict was the latest stage in the centuries old contest between natives and foreign conquerors which spanned the time from the Spanish "conquest" to the twentieth century.[10] In the village of Tepotzlán the natives faced the challenge of an

> . . . alien culture that ruffles their inner harmony and sullenly struggles for its place. And the freshly seared scars of revolution! These brusque, uprooting factors are well concealed, but bit by bit the stoic, stark independence of the inhabitants is becoming darkly overcast. In the brimming cup of their normal unaffected lives whirls the backwash of the tempest of the changing world. They feel subtly, uncomprehendingly, the tug of these conflicting influences; yet they little realize how much they are puppets of grotesque, gigantic forces. . . .[11]

This cultural conflict had its economic and political counterparts. The cities of Mexico grew during the 1920s, largely because of the expansion of industry and commerce. Labor unions prospered in these years under favorable government policies while the peasants endured a low standard of living and experienced many problems in building cohesive organizations. In 1927 Beals pointed to a split between workers and peasants in that

> . . . the tendency is for Mexican labor to become identified with the process of industrialization, seeking its gains in rapid economic expansion and at the expense of continued low rural standards. Hence the inevitable continuation of the cleavage between labor and peasant movements. Industry and the native industrial worker thus became identified with the western European invasion that began four centuries ago under Cortez. The peasant movement may ultimately be caught up in the same current; at present it is more closely linked with the great indigenous race surge of the Mexican people.[12]

In Beals' estimation the Catholic Church was too reactionary and too weak to help resolve this conflict. Beals saw that the church retained an "invisible empire" among the peasants,[13] but it failed to comprehend the significance of the rise of Indianism in Mexico.[14] Although Beals underestimated the peasants' willingness to stand and fight against the government's anticlerical campaign (1926-1929),[15] his assessment of the internal weaknesses of the Church was more realistic. The hierarchy seemed to be too distant from the rural parishes to understand their problems.[16]

In Beals' opinion, the government was the institution most capable

of ameliorating the conflict between tradition and modernity for the rural masses. While he occasionally praised the actions of political leaders in areas such as rural education,[17] he found much to criticize elsewhere. The revolutionary government's use of coercion against the Yaqui Indians to subdue their defiant nature was a prime example of willingness to destroy or weaken local native culture for the sake of national unity.[18] In an unpublished letter to Herbert Croly, editor of the *New Republic*, Beals berated the arbitrary policies of the Calles' regime in dealing with the Cristero movement. Beals was particularly wary of "the antique instrument of social control, the Army, which if it can be used for modernization can also be used for oppression." Such devices offered the possibility of a unified national culture but at a very high cost to the Indian and mestizo peasants.[19]

For Beals, Mexican anthropologist Manuel Gamio offered the preferred solution. From studies of the people of the Valley of Teotihuacán, Gamio concluded that some elements of native culture should be preserved within the modernization process. These traditions might help soften the often painful transition from isolated rural communities to a commercial and industrial society. Beals was deeply impressed by Gamio's implementation of these ideas in Teotihuacán and saw promise in his early work in Oaxaca. Much to Beals' disgust, Gamio lost his position in the Ministry of Education in 1925 as a result of a personality clash. His removal from the Ministry was a serious loss to the Revolution.[20]

In spite of many adverse factors, Beals maintained a persistant optimism. He saw Indian-mestizo culture as active, not passive, in its confrontation with elite-promoted modernization. Rather than a continued conflict, Beals saw signs of a cultural synthesis based on the merger of European and North American industrialism with native traditions. But Beals did not specify the content of the cultural synthesis nor the means by which it might appear. In a representative statement, he insisted that "the native culture is wrapping its arms about the newest industrialism, modifying its methods of work. . . ." His metaphor indicated the presence of a vague belief rather than complete certainty.[21] It is worth noting, however, that he held to this belief in spite of his understanding of the many conflicts involved in revolutionary change in the countryside.

Beals was in Peru from December of 1933 to April of 1934, a time of political uncertainty because of the tense relations between the military government of President Oscar Benevides and the leftist A.P.R.A. (Alianza Popular Revolucionario de América), a political party led by Victor Raul Haya de la Torre. A.P.R.A.'s frustrations resulting from its defeat in the election of 1931 exploded in a violent but unsuccessful revolt in July, 1932. By the time of Beals' trip, the Benevides government adopted a temporary policy of reconciliation with A.P.R.A.[22] Beals made good use of this relatively calm period by meeting with high-level

A.P.R.A. officials including Haya de la Torre and visiting several peasant villages in the vast Andean hinterland. Although A.P.R.A. was not in power Beals felt that it was likely to have considerable influence in Peru's immediate future.

In Peru the position of the revolutionary political elite was more tenuous than its counterpart in Mexico because of the dominant position of a firmly entrenched conservative aristocracy. A.P.R.A. was the center of revolutionary politics in Peru during the 1930s, and its antipathy toward the aristocracy was well known. Beals saw less obvious but potentially important sources of discord between the A.P.R.A. leadership and the peasants. While this type of conflict was not as clearly delineated as it had been in his writing on the political elite and the masses in Mexico, it was prominent in his analysis of the Peruvian situation.

Beals felt that the Indian and mestizo masses of Peru, like those of Mexico, had preserved many valuable traditions in spite of the inroads made by modern commercial civilization. He was impressed by their ability to live in harmony with nature, seemingly without plans almost as if by instinct. The center of Indian life was the *ayullu* or community social organization which furnished guidance and direction for family life, economic pursuits and local government. In spite of generations of exploitation and disruption by the European aristocracy, the *ayullu* survived as a source of stability in rural Peru, to Beals an accomplishment of great importance.[23]

Beals found that A.P.R.A. and the Indian-mestizo peoples had a common enemy in the coastal aristocracy which continued to control the government in spite of the Aprista's attempts to gain power. In Mexico the Revolution swept aside the landowning upper class, but in Peru the *gamonales* remained in command. To Beals they were an arrogant, racist and parasitic lot who blocked A.P.R.A. and held the Indians and mestizos in servile conditions. Under the legal system enforced by this aristocracy, the Indians and mestizos were not full citizens. In Beals' words:

> . . . they are rounded up like animals for the army and for labor on the large haciendas; they frequently lose their lands; they are mercilessly exploited. Their relation to the Peruvian state is one of onerous obligation, not of rights.[24]

Beals observed that the Apristas were not the first to favor social and economic change in rural Peru. Around the turn of the century a few liberal members of the aristocracy promoted education, universal military science, and land reform to break the peasant away from his traditional life style. While Beals judged these efforts failures,[25] he saw some similarities between them and the A.P.R.A. programs. Although there is some disagreement among historians concerning Haya's sincerity in calling for land reform,[26] there is little doubt that he stood for commercial and technical innovations in the rural areas. But the natives'

emotional attachment to the soil and to the old style of cultivation made innovation difficult. Beals cited the study of rural Peru made by Mexican educator Moisés Sáenz who concluded that the land was of such importance to the peasant that he could not see it as "property" subject to sale or transfer. Land was a part of the natural environment that, in the indigenous mind, could not be changed in any way without causing great harm. With such an outlook the natives perceived land reform and agricultural modernization as threats to a deeply ingrained, almost religious devotion to the old ways.[27] But Beals did not see this conflict in the simplistic terms of primitive versus modern. To him, Indian Peru was "a world of weird beauty and potential greatness." Beals warned, "Let not the makers and masters of machines sneer or feel too superior."[28]

Beals found potential for additional problems in A.P.R.A.'s relationship with the peasantry. He felt that the party attempted to include too many social groups—both urban and rural. Haya sought to make the rural masses one of the three sources of support for A.P.R.A. along with intellectuals and the middle class. Beals saw this effort as "too comprehensive. It is opportunistic, bureaucratic, hybrid. It is based on petty bourgeois reforms with slight collectivist tendencies."[29] By implication this approach had limited utility for the Peruvian peasants. Beals also decried Haya's personal domination of the party in which he appeared to be "perhaps too much of a God" to the lower echelon membership. In spite of these tendencies, Beals admitted that "Aprismo must be recognized as the most vital popular force in Peru,"[30] certain to have an important impact on rural Peru.

Looking beyond the immediate conflicts between Peruvian peasants and the revolutionary political elite, Beals had hopes for a meaningful reconciliation of Indian and European civilizations. He summarized his theories by positing the appearance of

> . . . an organic evolution out of native culture and traditions, the fusing of elements long warring in open contradiction. It involves, especially among highland tropic peoples, a unique experiment in socialization compounded of modern needs, colonial institutions and ancient indigenous experiences—all embraced in theories of democracy, Marxian economics and Fascist force—mass rhythms obeying vital life forces, new social concepts, and determinate aesthetic and ideological forms.[31]

In general, Beals believed that A.P.R.A. and the Indian and mestizo masses were confronted by two types of problems: one mainly economic and the other cultural. Economically, the peasants endured the oppressive and exploitative hacienda system which bestowed its benefits on the wealthy. Beals saw the efforts to abolish this pernicious system as a class struggle in which A.P.R.A. and the indigenous masses attempted to overthrow their upper class masters.[32] The cultural problem was more

complex, and its solution called for more sophisticated methods. The demise of the dominant class and the ascension to power of the popular elements did not mean that the new, presumably Aprista-led, government would be able to deal with rural Peru's resistance to cultural change. As in his conclusions on Mexico, Beals believed that a revolutionary culture which combined native with modern might preserve the viable parts of the Indian heritage while introducing technical innovations from the industrialized world in a way that would not rob the Indians and mestizos of their self-respect.[33]

* * *

Beals gained wide recognition as an anti-imperialist and as a defender of revolutionary causes, but these ideological positions did not necessarily lead him to accept the policies of the leftist government of Mexico or Peru's Aprista party. Some of his critics accused him of blindly sympathizing with revolutionaries, an accusation substantially negated by a close reading of his publications and private correspondence. Beals found fault with the authoritarian political leaders of Mexico and the personalistic and essentially middle-class Aprista movement in Peru. He expressed grave doubts about the effects of revolutionary change on the Indian and mestizo peoples.

One of Beals' most penetrating insights involved the ambiguities of elite-led revolutionary change among the rural masses of Mexico and Peru. While he did not systematically analyze these contradictions in a manner that would satisfy the modern social scientist, he did recognize and emphasize them in his writing. Using the findings of contemporaries like Manuel Gamio and Moisés Sáenz with his own personal experiences in the backlands, Beals developed an understanding of the peasant point of view. He was not unique among North Americans in this accomplishment, certainly Robert Redfield, Frank Tannenbaum, and Stuart Chase appreciated this perspective in Mexico.[34] But Beals added some provocative generalizations that pointed out the potentially disruptive effects of the reforms initiated by revolutionary political elites. While he continued to hope for a harmonious blending of imported innovations with native traditions, his probing questions suggested persistent doubts. Recent studies have given much more refined analyses of problems associated with modernization in rural areas. However, within the limits of this paper, it seems reasonable to conclude that Beals was an important pioneer in the study of the effects of elite-led revolutionary change on the rural masses in Latin America.

## NOTES

[1] S. N. Eisenstadt, *Modernization: Protest and Change* (Englewood Cliffs: Prentice Hall, 1966).

[2] For an overview see S. N. Eisenstadt, "Studies of Modernization and Sociological Theory," *History and Theory,* 13:3 (1974), 225-252. For more specialized studies see: Oscar Lewis, *Life in a Mexican Village* (Urbana: University of Illinois Press, 1951); Michael Belshaw, *A Village Economy* (New York: Columbia University Press, 1967); F. LaMond Tullis, *Landlord and Peasant in Peru* (Cambridge: Harvard University Press, 1970); and Peter Klarén, *Modernization, Dislocation and Aprismo* (Austin: University of Texas Press, 1973).

[3] Abdul Said and Daniel M. Collier, *Revolutionism* (Boston: Allyn and Bacon, 1971), pp. 69-80 and 104-107 and John Dunn, *Modern Revolutions* (London: Cambridge University Press, 1972), pp. 1-23, 48-69 and 244-257.

[4] Arnaldo Córdova, *La ideología de la Revolución Mexicana* (México: Ediciones Era, 1973), pp. 262-351 and John Y. F. Dulles, *Yesterday in Mexico* (Austin: University of Texas Press, 1961).

[5] Carleton Beals, *Mexico: An Interpretation* (New York: Huebsch, 1923), pp. 3-17 and *Mexican Maze* (New York: Lippincott, 1931), pp. 70-93.

[6] Beals, *Interpretation,* 85, 106-109.

[7] *Ibid.,* p. 114.

[8] Beals, *Maze,* 176-204.

[9] *Ibid.,* pp. 38-40 and *Interpretation,* pp. 84, 89-92.

[10] Beals, *Maze,* 49-54.

[11] *Ibid.,* p. 137.

[12] Beals, "The Revolution in Mexico," *New Republic,* 52 (October 25, 1927), 255-256.

[13] Beals, *Maze,* 67-68.

[14] Beals, "The Mexican Church on Trial," *Survey,* 57 (October 1, 1926), 12-15, 47-49.

[15] For discussions of the Cristero movement see Jean Meyer, *La cristiada* (Mexico: Siglo Veintiuno Editores, 1973-1974), 3 vols. and David Bailey, *Viva Cristo Rey!* (Austin: University of Texas Press, 1974).

[16] Beals, *Maze,* 301-302 and "Mexican Church Goes on Strike," *Nation,* 123 (August 18, 1926), 145-147.

[17] Beals, "Frontier Teachers," *Bulletin of the Pan American Union,* 59 (May, 1925), 443-452.

[18] Beals, *Maze,* 186-188.

[19] Beals to Croly, June 23, 1927, Beals Papers.

[20] Beals, *Maze,* 188.

[21] *Ibid.,* pp. 50-54, 162, 329.

[22] Frederick Pike, *Modern Peru* (London: Wedenfield and Nicholson, 1967), pp. 269-270 and Karén, *Modernization,* pp. 119-141.

[23] Carleton Beals, *Fire on the Andes* (Philadelphia: Lippincott, 1934), p. 325-348.

[24] *Ibid.,* p. 310.

[25] *Ibid.,* pp. 311-313.

[26] Thomas Davies, *Indian Integration in Peru* (Lincoln: University of Nebraska Press, 1974), pp. 100-112 and Klarén, *Modernization,* 132-135. Davies argues that

Haya's appeal to the peasants was politically motivated while Klarén sees him as an astute observer sincerely concerned about rural problems. For a sampling of Haya's public statements on the Indian problem see his *Construyendo el Aprismo* (Buenos Aires: Colección Claridad, 1933), pp. 104-116, and *Política Aprista* (Lima: Atahualpa, 1933), p. 23.

[27] Beals, *Fire*, 342. Beals made frequent use of Sáenz' *Sobre el indio Peruano y su incorporación al medio nacional* (Mexico: Secretaría de Educación Pública, 1933).

[28] Beals, *Fire*, 348.

[29] *Ibid.*, pp. 401, 426.

[30] *Ibid.*, pp. 427-429.

[31] *Ibid.*, p. 431.

[32] *Ibid.*, pp. 319-320.

[33] *Ibid.*, p. 306.

[34] Stuart Chase and Marian Tyler, *Mexico: A Study of Two Americas* (New York: Macmillan, 1931); Robert Redfield, *Tepotzlán, A Mexican Village* (Chicago: University of Chicago Press, 1930), and Frank Tannenbaum, *Peace by Revolution* (New York: Columbia University Press, 1933). For general studies of the response of U.S. intellectuals see Donald L. Zelman, "American Intellectual Attitudes Toward Mexico, 1908-1940" (Unpublished Ph.D. Dissertation, Ohio State University, 1970) and Eugenia Meyer, *Conciencia histórica Norteamericana sobre la Revolución de 1910* (Mexico: I.N.A.H., 1970).

# MEXICAN OIL DIPLOMACY AND THE LEGACY OF TEAPOT DOME

By James J. Horn

The notorious Teapot Dome scandal of the Harding administration captured headlines for years and has since become a standard page in texts on American political history. Almost unnoticed, however, was the impact of that scandal on American foreign relations. During the presidencies of Calvin Coolidge and Plutarco Elías Calles, the United States and Mexico became embroiled in a dispute over American property rights in Mexico which reached near crisis proportions and raised the issue of diplomatic support for petroleum investments abroad. At a crucial moment in that dispute, the whirlwind of Teapot Dome mounted to trim the sails of intervention-minded Americans and steer the State Department toward a more conciliatory course. This little known episode is a classic illustration of the weight of domestic events in the shaping of foreign policy.

In the late 1920s, the United States and Mexico had locked horns on several issues deriving from President Calles' attempts to implement parts of the Constitution of 1917. The agrarian reform program, while hardly sweeping, nevertheless adversely affected American held properties and led to numerous formal protests from the State Department. Mexican anticlericalism, directed against the political might of the Catholic Church, provoked an intense struggle in which certain American Catholics sided with their Mexican coreligionists and sought State Department intervention. Then, when Mexico backed the Liberal rebellion against a U.S. supported Conservative regime in Nicaragua, a large sector of Americans feared the "bolshevist influences" from Mexico threatened the Panama Canal, and the Coolidge Administration sent marines to Nicaragua. These incidents coincided with a bitter debate over foreign subsoil rights in Mexico particularly involving petroleum. Consequently, by 1926 relations with Mexico became a dominant foreign policy issue before the American public and one of the State Department's toughest problems. Mexico was in the news almost daily for months at a time. In fact, from August 1926 to February 1927, Mexico and Nicaragua overshadowed almost every other foreign issue.[1]

The fundamental controversy with Mexico centered upon property rights. While actual agrarian seizures were more extensive, the strength and influence of the petroleum interests generated more publicity and official concern. The debate revolved around *Ley Petróleo* passed by the Mexican congress in December, 1925.[2] The law enacted provisions of Article 27 of the Constitution of 1917 dealing with subsoil rights, particularly the clause which read:

> Only Mexicans by birth and naturalization and Mexican associations have the right to acquire ownership in lands, waters, and their appurtenances, or to obtain concessions to develop mines, waters, or mineral fuels in the Republic of Mexico. The Nation may grant the right to foreigners, provided that they agree before the Department of Foreign Affairs to be considered Mexicans in respect to such property, and accordingly not to invoke the protection of their Governments in respect to the same, under penalty, in case of breach, of forfeiture to the Nation of property so acquired.[3]

Specifically, the law provided that foreign oil companies must exchange their titles for fifty year leases which began with the commencement of drilling. To obtain leases, the producers had to agree to the Calvo Clause not to invoke protection from their home government under penalty of forfeiture of their rights. The law particularly affected powerful American and British interests. United States based firms held over 58 percent of total petroleum investments and accounted for about 70 percent of production. British companies owned about 40 percent of investments and controlled about 27 percent of production.[4] At this time Mexican oil production was second in the world only to that of the United States, having reached a peak of 193,397,500 barrels in 1921; by 1926 it had declined precipitantly to 90,420,000 barrels.

The petroleum law was to become effective January 1, 1927, but the State Department challenged it before its passage. Fearing retroactive application of the law against companies which had acquired titles prior to May 1, 1917, when the Mexican Constitution was officially promulgated, American Secretary of State Frank B. Kellogg addressed *aides mémoire* to the Foreign Office on November 17 and 27, 1925, initiating a lengthy diplomatic correspondence which persisted well into 1926.[6]

Throughout the contestation the United States rigidly maintained that the Mexican legislation was retroactive in character and confiscatory in effect. It argued that recognition of Mexico in 1923 had been based on "solemn and binding" understandings that Mexico would not impair American property rights. Moreover, it held that the Calvo Clause could not annul the relationship between an American citizen and his government or extinguish the government's obligation to protect its citizens against a denial of justice. The American position included numerous legal arguments affecting property rights and specific aspects of the Mexican law. Perhaps most irritating to the companies and to the State Department was their inability to determine the exact status of American rights to pre-constitutionally acquired titles. The Department shared the companies' "damned if we do and damned if we don't" attitude. Conceding to the legislation by exchanging acquired titles for leases violated their rights. But non-compliance could result altogether in loss of their properties.[7]

While the American position had basis in international law, the justice of American claims was questionable in one important respect—the Mexican legislation threatened but in no way violated American rights since the law had not yet gone into effect. The Mexican foreign office consistently retorted with demands for concrete cases of violations of acquired rights. To this the Department could only respond that the threat of eventual seizure prevented Americans from fully exploiting their holdings and thus constituted *pro tanto* confiscation.[8]

By November, 1926, the official correspondence had reached a complete impasse, highlighted by the stern warning from the United States that an "extremely critical situation" would result if the Mexican laws were enforced in violation of American rights or the understandings of 1923.[9] At this juncture, the Nicaraguan and religious crises temporarily distracted attention from the issue of property rights.

As January 1, 1927, the deadline for compliance neared, President Calles refused to grant a period of grace and the major American producers broke off negotiations with Luis Morones, Mexican Secretary of Industry, Commerce, and Labor.[10] Tensions mounted steadily as the petroleum producers, fearing loss of their holdings, demanded State Department backing, and Mexico, anxious to demonstrate its sovereignty, feared a possible intervention. Many times in the past, American warships had appeared off Tampico and the coastal areas of the petroleum zone to warn against threats to American properties by various revolutionary factions. In December, 1926, American marines landed to bolster the Conservative government in Nicaragua, with further troop deployments in January. Then, on January 10, President Coolidge sent an unexpected message to Congress defending his policies in Nicaragua and accusing Mexico of seeking to establish a government there hostile to American interests. Coolidge viewed Calles' support of the Liberal rebel forces as a threat to the stability and constitutional government of Nicaragua and a menace to the Panama Canal.[11]

Two days later, in answer to congressional criticism, Secretary Kellogg charged before the Senate Foreign Relations Committee that a Mexican conspiracy, linked with international bolshevism, threatened the Panama Canal. Kellogg left the committee a printed statement entitled "Bolshevist Aims and Policies in Mexico and Latin America," which was printed in full in many papers the next day.[12] While the Congress remained unconvinced, *Excelsior* exemplified the Mexican apprehension that the American government was trying to provoke among its people hostility toward Mexico.[13] Thus the Administration's menacing remarks, and the presence of marines in Nicaragua, gave the Calles government cause for concern.

But January 1 came and went without Mexican action against the recalcitrant firms. For various reasons both sides were reluctant to force a showdown. The State Department, for its part, had squared off against

Mexico with one hand tied behind its back, for the American public would not rally to protect American petroleum interests. The tainted image of the petroleum producers directly affected American diplomacy by stiffening opposition to any drastic action on their behalf.

Of the scandals of the Harding administration, the most sensational involved the naval oil reserves located at Teapot Dome, Wyoming and Elk Hills, California. As part of the conservation program, the Taft and Wilson administrations had set aside those reserves to be maintained until such time as the navy might find it difficult to obtain oil from other sources. Soon after Harding's inauguration, Secretary of the Interior Albert B. Fall persuaded him to issue a secret executive order transferring the naval reserves to the Interior Department. Fall claimed that the reserves were draining off and that leases to private companies would profit the government and enhance national preparedness. Then, in 1922, Fall secretly leased the reserves, without competitive bidding, to companies owned by Harry F. Sinclair and Edward L. Doheny. Rumors of the leases led to congressional hearings under Senator Thomas J. Walsh of Montana which began in October 1923. After lengthy testimony it was ascertained that Sinclair had "loaned" Fall $308,000 in cash and government bonds, and a herd of cattle for his ranch. Doheny "loaned" $100,000 more. Fall, Doheny, and Sinclair were subsequently indicted for conspiracy and bribery in June, 1924, but numerous delays postponed the trials for years. Not until October 1929 was Fall finally convicted of accepting a bribe and sentenced to one year in prison and a fine of $100,000. Doheny and Sinclair were both acquitted of the bribery charges, although Sinclair was sentenced to nine months' imprisonment for contempt of court. As for the leases, the Supreme Court eventually declared them invalid on the grounds that they had been obtained in fraud and corruption.[14]

The numerous trials and hearings associated with the scandal created headlines throughout the Mexican oil controversy. In fact, because of postponements, the Fall-Doheny trial did not begin until November 1926. On December 16 just as the Mexican controversy entered the tense stage prior to the January 1 deadline for compliance, the jury brought in a verdict of "not guilty."[15] Nevertheless, the defendants had already been "convicted" in the minds of the majority of Americans, judging by the public response. According to a thorough sampling of press reports in the *Literary Digest,* a preponderance of the American press seemed to echo the sentiments of the Kansas City *Star:* "They have been acquitted by a jury, but they have not been acquitted at the bar of public opinion."[16]

Democratic sources were most critical of the verdict. Former Navy Secretary and future Ambassador to Mexico, Josephus Daniels, assailed the verdict and added that "the real thing I would like to say would have to be printed on asbestos, as it would burn up any newspaper."[17] The

New York *Times*, New York *World*, and Brooklyn *Eagle* concurred that as far as the American public was concerned, acquittal did not vindicate the defendants from suspicion of misconduct. Similar sentiments could be found in other Democratic papers including the Norfolk *Virginian-Pilot*, New Orleans *Times Picayune*, and Boston *Post*.[18] The Richmond *Times-Dispatch* believed "virtually all the people of the United States" regarded the jury as derelect in the performance of its duty.[19] Other critical Democratic sources were the Philadelphia *Record*, Dayton *News*, Nashville *Tennessean*, Louisville *Courier-Journal*, and Mobile *Register*.[20]

Newspapers classified as independent joined those who viewed the verdict as acquittal without vindication. These included the Kansas City *Star*, previously mentioned, the St. Louis *Globe-Democrat*, the Springfield *Republican*, and the Providence *Journal*.[21] The Cincinnati *Post* (and other Scripps-Howard papers) commented cynically: "Doheny was just an impulsive Santa Claus to his old prospecting pal [Fall]. So twelve jurors played Santa Claus for him. Merry Christmas."[22] The San Francisco *Chronicle* recognized impropriety in the episode, but viewed Doheny as a victim duped by Fall and the Navy Department.[23]

Even the Republican papers, with few exceptions, did not rise to defend the verdict or the defendants. The Albany *Knickerbocker Press* called upon all good Americans to accept the decision, and the Syracuse *Post-Standard* said guilt had not been established beyond a reasonable doubt.[24] But such declarations of a sound verdict aside, there was much more critical sentiment. Numerous editors regarded the jury as lenient, and there was widespread feeling that the decision would not affect public opinion. The Wichita *Beacon's* view that the episode, in the minds of the people, "remains about where it was before the trial," was shared by the Minneapolis *Journal*, Boston *Transcript*, Springfield *Union*, and Pittsburgh *Gazette Times*.[25] Only the New York *Herald-Tribune*, a consistent supporter of the Coolidge Administration, went out of its way to exonerate Doheny as a patriotic American. Yet even that Republican paper conceded Fall's "total unfitness for public office."[26]

This preponderant criticism of the verdict and the defendants and a general suspicion of the oil men was a persistent theme in liberal journals such as *The New Republic*, *The Christian Century*, and *The Nation*, all of which are mentioned later. In sum, despite the verdict, a widespread public suspicion of impropriety if not crime hung over Fall and the oil men.[27]

The issue remained alive as lower courts heard testimony on the validity of the Teapot Dome and Elk Hills leases. Then, in late February, 1927, the Supreme Court upheld the lower court rulings declaring the Doheny leases unlawful and void and the whole affair "tainted with corruption".[28] The prevailing press sentiment at this time held that the not-guilty verdict in the criminal case for conspiracy was "morally overturned" by the Supreme Court's decision in the civil case.[29] But the man in the

street could cynically ask how the deal could have been consummated in fraud and corruption while the parties to the deal were not guilty.

The following month Harry Sinclair was tried for contempt of the Senate for refusing to answer questions during the congressional inquiry. He was convicted the following May. Meanwhile, defense maneuvers postponed the trial of Fall and Sinclair for conspiracy to defraud the government slated to begin February 1, 1927.[30] Hence, no one was yet in jail as the smoldering Mexican controversy flared up anew.

But the adverse publicity had already severely tarnished the public image of the oil men. A large segment of the population probably would have concurred with Harold Ickes' later comment that "An honest and scrupulous man in the oil business is so rare as to rank as a museum piece."[31] What is more, the American public and Congress had been educated to look for the sinister shadow of petroleum behind quarrels with Mexico. As early as 1924, the popular magazine *Liberty* carried an article linking the Teapot Dome scandal with the same oil interests that had kept revolutionary warfare alive in Mexico for their own private ends.[32]

In January, 1926, Calles had singled out petroleum as the true source of Mexican-American difficulties, adding: ". . . the trouble is not between the people of the United States and the people of Mexico, but between the people of Mexico and a small group of American capitalists who are trying to induce the Department of State to aid them by force."[33] Mexican politicians frequently blamed this problem on Wall Street magnates, especially the *petroleros,* and a similar theme was commonplace in the Mexican press.[34]

As the dispute with Mexico reached its tense state in January, 1927, President Calles weakened the hand of the interventionists by offering to arbitrate the controversy over property rights. The Coolidge administration viewed the issue as non-arbitrable and showed no inclination to accept the offer.[35] The American Congress and press reacted quite differently, however, and opponents of Administration policies began to blame petroleum interests for the Administration's intransigence.

Democratic representative George Huddleston of Alabama denounced "the great American business interests" who sought war with Mexico "for the protection of their mines and oil wells." Huddleston won the applause of Congress with his ringing manifesto "I am not willing that a single American boy shall be conscripted and sent into Mexico to lose his life in order that the oil companies may pay dividends."[36]

Senator William E. Borah had already emerged as the Administration's leading gadfly. The Republican from Idaho was chairman of the powerful Foreign Relations Committee and both Coolidge and Kellogg treated him with deference. Borah believed that there was "a determined effort on the part of selfish interests to embarrass our government and lead to a break with Mexico."[37] He cooperated with a bipartisan faction

in the Senate in urging a conciliatory course. After a favorable report from Borah's committee on January 25, the Senate unanimously approved the Robinson Resolution calling on the Administration to arbitrate its dispute with Mexico.[38]

In answer to press speculation that Doheny interests were pressuring the Administration, in early February the Senate adopted a resolution by George W. Norris, the famous Nebraska liberal, requesting from the State Department a list of companies which had complied with Mexican law, and inquiring whether the State Department had given the companies any advice or instructions (which Kellogg denied.)[39] Meanwhile, a Senate Foreign Relations subcommittee heard testimony that companies which had not complied with Mexican law and applied for confirmatory concessions owned 1,660,579 acres, and that Doheny, Sinclair and Mellon owned 87.9 percent of the total.[40] A second Norris resolution of February 24 asked the State Department whether Doheny, Sinclair, or Mellon were among the recalcitrants.[41]

Borah had earlier captured the headlines by directly wiring President Calles to request information on the American companies which had not complied with the law.[42] Before the end of February he proposed that his Foreign Relations Committee travel to Mexico and Central America to investigate.[43] While that junket never received approval, Congress did perceive a kind of "credibility gap" between the Administration and the public. With increasing frequency voices argued that American businessmen who invested abroad did so at their own risk.[44] This of course, contravened the Coolidge administration's position that the government must protect its citizens beyond its borders.

Coincident with this congressional debate, numerous newspapers and journals had taken up the cry against intervention on behalf of the oil men. In January, *The Independent*, a fairly liberal weekly, complained against the "active *claque* working steadily in this country toward an American domination of Mexican affairs." Noting that an explosive incident could lead to war, that journal boldly cautioned: "Leave Mexico Alone."[45]

Walter Lippmann's New York *World* (intoned the same refrain, blaming men like Doheny for America's problems with Mexico. Noting that oil-tarnished Secretary Fall had consistently advocated intervention in Mexico, Lippmann admonished Coolidge to beware lest the oil interests lead the country into war.)[46]

In February's *The New Republic*, Carleton Beals queried: "Whose Property is Kellogg Protecting?"[47] He concluded that only Doheny and Mellon interests had not complied with the Mexican legislation on at least some of their holdings. Since Luis Morones had praised Mellon's cooperative attitude in his Mexican dealings, only Doheny remained recalcitrant. Beals ascribed this situation to Doheny's weak legal position, pointing out that the 1,321,167 acres controlled by Doheny interests

accounted for 36.05 percent of the Mexican oil holdings.[48] The following April Beals was still campaigning for a congressional inquiry into the practices of the oil producers in Mexico, and charging the American oil titles there had been obtained by fraud, bribery, and even murder in a setting of "Borgian violence."[49]

Throughout February's issues, the editors of *The New Republic* charged repeatedly that the oil men were in the wrong, that Mexican policies did not call for force, and that the producers would have settled long before if State Department support had not raised expectations for better terms. Arguing that the American people were being asked to coerce Mexico for the benefit of a few citizens like Doheny, that journal called the Administration's Mexican policy ". . . one of the most serious blunders in American statesmanship in a generation."[50]

*The Christian Century*, a liberal Protestant journal, also warned that the petroleum dispute could lead to war. Referring to the previous transgressions of Doheny and his ilk, the editor observed that the oil interests should not be surprised if the public ignored their pleas for help in Mexico.[51] *The Nation* reprinted the entire text of one of Borah's well-received public addresses urging conciliation with Mexico and closing with the plea: "God has made us neighbors—let justice make us friends."[52]

This is not to imply that such sentiments were universal. Numerous papers and journals supported Administration policies and advocated a hard line with "bolshevist" Mexico.[53] This article does not intend to survey the wide range of public opinion on the issue of Mexican policy, however, but rather to demonstrate that corrupt oil men were linked with Mexican problems in both the news media and the Congress.

The corruption of the petroleum interests so captured the public imagination that it became the subject of literature and the arts. Samuel Hopkins Adams' 1926 novel *Revelry* fictionalized the scandals of the Harding Administration and helped keep the issue alive.[54] Referring to *Revelry* in connection with the Fall-Doheny trial, *The Independent* magazine expressed hope that history would expose the scandals so the job would not have to be left to fiction.[55]

Joseph Hergesheimer's 1926 novel *Tampico* dealt with petroleum corruption specifically, painting a lurid picture of greed, conspiracy, fraud, violence, and murder directed from the London, Holland, and New York offices of the oil tycoons. The timeliness of Hergesheimer's theme emerges when one of his characters seeking American intervention in Mexico remarked: "Then we could have Article 27 reversed and run our companies any damn way we chose."[56] The novel received general unfavorable reviews, but Hergesheimer was a major writer of the twenties and his works sold widely.[57] At any rate, his exposé of American commercial imperialism came at a very opportune moment.

The popularity of this theme was again demonstrated in the Broadway play *Spread Eagle* by George S. Brooks and Walter B. Lester, which

opened to mixed reviews at the Martin Beck theater in New York on April 4, 1927. The plot concerned the Spread Eagle Mining Company headed by a New York financier disgruntled by Mexican policies. The tycoon succeeded in luring the son of a former President into the path of a revolution he had instigated by bribing a Mexican general. The death of the President's son accomplished the desired goal of American intervention.[58]

With the State Department at a loss as to which way to turn, a bizarre episode helped guide it in a moderating direction. In late February, the Calles government handed over to American officials copies of about 350 stolen American documents. The collection included official correspondence between Ambassador Sheffield and Secretary Kellogg, reports of the military attaché, consular dispatches, and other documents stolen from the American Embassy in Mexico City. The complexities of this episode need not be detailed here. In brief, some of the documents were forged, but most were authentic and embarrassing. Furthermore, the Administration had no idea how many more documents the Calles government possessed. Mexican complaints that the United States was plotting an invasion of Mexico seemed to have a chastening effect on Coolidge.[59]

The fact that the situation in Nicaragua was pretty well under control, and the mounting press and congressional criticism of the Administration seemed to discount the danger of any drastic action by March, 1927. The following month both sides seemed determined to resolve their problems unemotionally and President Coolidge manifested a more amiable attitude in an address to the United Press Association. While reasserting the government's obligation to protect American personal and property rights abroad, he insisted that the United States sought no quarrel with Mexico, sympathised with its people, and desired to assist them.[60] President Calles found Coolidge's remarks "serene and cordial" and announced that the way was now open to a satisfactory settlement of all pending difficulties.[61] That same month, Justice William Howard Taft wrote his friend Ambassador Sheffield in Mexico of his conversation with Secretary Kellogg who believed that the situation in Nicaragua was clearing up and the Calles government now seemed more disposed to yield to reason.[62] The danger past, the hardline Ambassador resigned during the summer, paving the way for the appointment of Coolidge's former college friend Dwight W. Morrow who, due to his personal qualities and a propitious change in Calles' attitude, worked out an informal and temporary settlement of the outstanding difficulties.[63]

Numerous factors help explain the sudden easing of tension. President Calles was faced with enormous internal problems. By late 1926 the smoldering religious strife had expanded into a sizeable and bloody conflict, the Cristero rebellion. The Yaqui Indians' revolt also required military action and put a strain on the budget. The decline in petroleum production resulted in a serious fiscal crisis which worsened with a decline in

the price of silver, Mexico's second major export. Calles realized he had little to gain by continuing to antagonize the United States and took advantage of the change in ambassadors to work out a settlement.[64]

For President Coolidge, the wisdom of moderation was clear with an election year looming. The scandals of his predecessor had put him on the defensive as Democrats tried unsuccessfully to taint him with corruption.[65] Relative calm in Nicaragua and the embarrassing stolen documents also played a role. Undoubtedly the public reaction against the oil men helped arouse considerable sentiment against the Administration's policies of defending property rights in Mexico. But one cannot overestimate the role of the Teapot Dome scandal and public opinion in the light of other important factors. The anti-Mexican campaign of Catholic partisans in the United States had the unintentional effect of aiding Calles by stimulating certain Protestant groups, liberal journals, and the Ku Klux Klan to counterprotest. Thus the State Department had to be wary lest it appear to be a "tool of Rome."[66] To this must be added the decline in importance of Mexican oil. The fear had earlier gripped American business and government circles that domestic petroleum reserves might soon be exhausted. The post-World War I period of intense oil exploration began to bear fruit in 1924 with the discovery of vast new oil deposits in Oklahoma, Texas, Louisiana, and California. The companies had also begun moving their operations into Colombia and Venezuela which soon replaced Mexico as the major foreign sources for petroleum. Thus, by 1927, the previous oil scarcity had become a surplus making Mexican oil less consequential, lessening the Administration's concern, while at the same time weakening Calles' bargaining position in dealing with the foreign interests.[67]

All these things brought pressure to bear for a peaceful settlement of Mexican-American difficulties. But the mercurial barometer of public opinion cannot be discounted. Of course, the actual extent to which public opinion affected the Administration and the State Department is impossible to gauge. Nevertheless, there is evidence that public officials were very sensitive to public opinion, and on occasion even attempted to shape it.

For example, in November 1926, Undersecretary of State Robert Olds was convinced that the public had to be "educated" if the Department was to win popular support for its plan to send troops to bolster the Conservative Diaz regime in Nicaragua. At the suggestion of Hugh R. Wilson, Chief of the Division of Current Information of the State Department, Olds called in representatives of the four press associations and extracted from them a pledge not to quote him. He then related a sensational tale of communist intrigue in Mexico and Central America, and asked the reporters to cooperate in educating the public to the danger. Only the Associated Press complied with Olds' request, issuing a release on the "specter of bolshevism" in Mexico which the Department

feared threatened the Panama Canal. When news leaked out of Olds' role, the Administration was embarrassed by charges of managed news.[68]

Ambassador Sheffield had been a persistent critic of the State Department's failure to pursue a stronger policy toward Mexico. He was convinced that publication of the details of cases on file in the Department would bring about public demands for a firmer policy. When Secretary Kellogg responded that there was no support for a policy more vigorous than the one the Department was pursuing, Sheffield responded:

> You feel the American people would not support a movement for armed force in Mexico. I quite agree with you so long as we conceal from them the facts. But what would be their position if they knew the truth about Mexico, . . . [?][69]

In late October, 1926, Sheffield's friend Chandler Anderson, a lawyer who had frequently represented Conservative Nicaraguan governments in Washington, reported a conversation with Kellogg in which the Secretary developed his belief that the Department could not go further than it already had in dealing with Mexico. Kellogg believed that Congress would not support even withdrawal of recognition, much less anything more drastic. He added that he was not even getting press support, singled out several newspapers for their hostility, mentioned the opposition of the American Federation of Labor, and pointed out that even the Ku Klux Klan supported Mexico because of its religious policies.[70] Obviously, Kellogg lamented this lack of support for the Administration.

The most revealing document, and the only source which directly implicated public opinion in policy formulation, was a memorandum by Assistant Secretary of State William R. Castle, a man with considerable influence on Secretary Kellogg. Castle indicated that a state department officer had told newsmen at the time of the petroleum crisis that "public opinion was set, that any drastic attitude toward Mexico was pretty near impossible."[71]

It would thus seem apparent that the significant opposition to any action on behalf of petroleum interests in Mexico was an important consideration in the formulation of State Department policy. The glare of publicity given to their previous misdeeds found the petroleum interests in a state of indecent exposure just at the height of the Mexican oil controversy. Almost ignored in the past, this striking coincidence forms the diplomatic legacy of Teapot Dome.

## NOTES

[1] See James J. Horn, *Diplomacy by Ultimatum: Ambassador Sheffield and U.S.-Mexican Relations, 1924-1927* (Ph.D. dissertation, State University of New York at Buffalo, 1969), hereafter cited as Horn, *Diplomacy by Ultimatum.*

[2] Text of law in Charles W. Hackett, *The Mexican Revolution and the United States, 1910-1926* (Boston: World Peace Foundation, 1926), pp. 425-431.

[3] From text of Article 27, Political Constitution of the United States of Mexico, quoted in *ibid.*, p. 408.

[4] Ludwell Denny, *We Fight for Oil* (New York: Alfred A. Knopf, 1928), p. 56.

[5] Leonard M. Fanning, *American Oil Operations Abroad* (New York and London: McGraw Hill Book Co., 1947), p. 52, hereafter cited as Fanning, *American Oil Operations Abroad.*

[6] *Aide mémorie* of November 17 is enclosed in Kellogg to Sheffield, November 13, 1925, *Records of Department of State,* National Archives, 812.5200/50, hereafter cited as *R.D.S.* followed by file number: *Aide mémoire* of November 27 and other correspondence has been published as *Rights of American Citizens in Certain Oil Lands in Mexico,* Senate Document 96, 69 Cong. 1 sess. (Washington: Government Printing Office, 1926), and *American Property Rights in Mexico: Further Correspondence Between the Governments of the United States and Mexico in Relation to the So-Called Land and Petroleum Laws of Mexico,* Supplementing the *Correspondence Heretofore Published as Senate Document 96,* 69 Cong., 1 sess. (Washington: Government Printing Office, 1926), hereafter cited as *American Property Rights in Mexico: Further Correspondence.*

[7] *Ibid.*

[8] Summary of issues based on *ibid.* and official memorandum entitled "Mexico", January 29, 1927, James R. Sheffield papers, Yale University, hereafter cited as Sheffield Mss.

[9] Text of Kellogg notes in *American Property Rights in Mexico: Further Correspondence,* October 30, 1926.

[10] New York *Times,* December 30, 1926.

[11] *Congressional Record,* LXVIII, Part 2, 69 Cong., 2 sess., 1324-3126: New York *Times,* January 11, 1927.

[12] Text of Statement and reports in New York *Times,* January 13, 1927.

[13] *Excelsior,* January 15, 1927.

[14] Summary based on Robert Engler, *The Politics of Oil* (Chicago: University of Chicago Press, 1961), pp. 317-318, hereafter cited as Engler, *The Politics of Oil;* J. L. Bates, *The Origins of Teapot Dome* (Urbana: University of Illinois Press, 1963), pp. 220-243; M. R. Werner and J. Starr, *Teapot Dome* (New York: Viking Press, 1959), hereafter cited as Werner and Starr, *Teapot Dome;* Burl Noggle, *Teapot Dome* (Baton Rouge: Louisiana State University Press, 1962), hereafter cited as Noggle, *Teapot Dome.*

[15] New York *Times,* December 17, 1926.

[16] *Literary Digest,* 91 (December 25, 1926), 7.

[17] *Ibid.*, 6.

[18] *Ibid.*

[19] *Ibid.*

[20] *Ibid.*

[21] *Ibid.*

[22] *Ibid.*

[23] *Ibid.*

[24] *Ibid.*

[25] *Ibid.*

[26] *Ibid.*

[27] Numerous sources attest to press and public sentiment. See also Paul Y. Anderson, "Twelve Good Men and True," *The Nation* (January 5, 1927), 9-11, who argues that 95 percent of the newspaper correspondents and "the overwhelming preponderance of public opinion" had already convicted Fall and Doheny.

[28] *Literary Digest*, 92 (March 12, 1927), 8-9.

[29] *Ibid.*

[30] Werner and Starr, *Teapot Dome*, 221-223, 225-250, 266-284; Noggle, *Teapot Dome*, 200-215.

[31] Harold Ickes Diary, July 21, 1936, quoted in Engler, *The Politics of Oil*, 286.

[32] Edward S. O'Reilly, "Well Oiled Insurrections," *Liberty*, 1 (September 20, 1924), 36-38.

[33] Plutarco Elías Calles, *Mexico Before the World*, translated and edited by Robert H. Murray (New York: The Academy Press, 1927), p. 152.

[34] See for example speeches in the Mexican Chamber of Deputies reported in New York *Times*, January 1, 1927; editorials in *El Demócrata*, January 20, 22, 1926.

[35] New York *Times*, January 9, 1927: The State Department position is explained in H. F. Arthur Schoenfeld to James R. Sheffield, February 8, 1927, Sheffield Mss.

[36] *Congressional Record*, January 8, 1927, LXVIII, Part 2, 69 Cong., 2 sess. 1291, 1292.

[37] Borah to Rev. C. E. Burgess, March 28, 1927, the William E. Borah papers, Division of Manuscripts, Library of Congress, hereafter cited as Borah Mss.

[38] For press accounts see *Literary Digest*, 92 (February 5, 1927), 10-11; *Congressional Record*, LXVIII, Part 2, 69 Cong., 2 sess., 2200-2204; New York *Times*, January 22, 1927.

[39] *Congressional Record*, LXVIII, Part 2, 69 Cong., 2 sess., 2057-2058.

[40] *Hearing Before a Subcommittee of the Committee on Foreign Relations*, United States Senate, 69 Cong., 2 sess. (Washington: Government Printing Office, 1927), 28-29.

[41] *Congressional Record*, LXVIII, Part 4, 69 Cong., 2 sess., 4642, 4974.

[42] Arnold Toynbee, *Survey of International Affairs, 1927* (New York: Oxford University Press, 1929), 463; Text of Borah telegram and Calles reply in *United States Daily*, March 1, 1927.

[43] New York *Times*, February 24, 1927: Marian C. McKenna, *Borah* (Ann Arbor: University of Michigan Press, 1961), pp. 229-280.

[44] Amos Pinchot, "The Flag and the Dollar", *The Forum*, 77 (September, 1927), 435-442.

[45] *The Independent*, 118 (January 15, 1927), 60.

[46] New York *World*, January 27, 1927.

[47] Carleton Beals, "Whose Property is Kellogg Protecting?", *The New Republic*, 50 (February 23, 1927), 8-11.

[48] *Ibid.*

[49] Carleton Beals, "Who Wants War With Mexico?" *The New Republic*, 50

(April 27, 1927), 266-269.

[50] *The New Republic*, 49 (February 2, 1927), 285-286; (Quotation:) 49 (February 8, 1927), 312; 49 (February 16, 1927), 342; 50 (February 23, 1927), 2.

[51] *The Christian Century*, 44 (March 17, 1927), 323-324; see *Ibid.*, (February 17, 1927), April 7, 1927), 422-426.

[52] Borah, "Neighbors and Friends. A Plea for Justice in Mexico.", *The Nation*, 124 (April 13, 1927), 392-394.

[53] Most consistent in supporting the Administration were the Washington *Post* and the New York *Herald Tribune*. For examples of dozens of papers critical of "bolshevism" in Mexico, see Horn, *Diplomacy by Ultimatum*, 128-157; most business and financial journals were remarkably silent on Mexican affairs, except for the *Wall Street Journal* and *Barron's* which favored a hard line with Mexico. A thorough survey of business media uncovers no sentiment favoring protection of petroleum interest in Mexico except in such company journals as Jersey Standard's *The Lamp*.

[54] Samuel Hopkins Adams, *Revelry* (New York: Boni and Liverwright, 1926).

[55] *The Independent*, 117 (November 27, 1926), 607. The novel was also mentioned in Raymond Clapper, "Sinclair and Fall on Trial", *The Nation*, 124 (October 26, 1927), 445-446.

[56] Joseph Hergesheimer, *Tampico* (New York: Alfred A. Knopf, 1926), p. 279.

[57] Sales figures are not available from the publisher. Hergesheimer's "supreme position" as a novelist before the depression is discussed in Clifton Fadiman's, "The Best People's Best Novelist," *The Nation*, 136 (February 15, 1933), 175-177.

[58] Ernest Gruening, *Mexico and Its Heritage* (New York and London: D. Appleton-Century Co., 1942), p. 616; *Book Review Digest, 1927* (New York: H.W. Wilson Co., 1928), p. 105.

[59] See Horn, *Diplomacy by Ultimatum*, 169-174.

[60] Text of Coolidge address in New York *Times*, April 26, 1927.

[61] Calles quoted in *El Universal*, April 27, 1927.

[62] Taft to Sheffield, April 13, 1927, Sheffield Mss.

[63] Horn, *Diplomacy by Ultimatum*, 189-195; Harold Nicolson, *Dwight Morrow* (New York: Harcourt, Brace and Co., 1935), p. 304.

[64] Horn, *Diplomacy by Ultimatum*, 159-193 *passim;* Fran Schneider Jr., "The Financial Future of Mexico," *Foreign Affairs*, 7 (October , 1928), 88.

[65] Gerald D. Nash, *United States Oil Policy, 1890-1964* (Pittsburgh: University of Pittsburgh Press, 1968), p. 81.

[66] Denny, *We Fight for Oil*, 67-68.

[67] *Ibid.*, 90; Fanning, *American Oil Operations Abroad*, 3-7, 53; Nash *United States Oil Policy*, 82; The serious economic crisis in Mexico and particularly the oil slump is covered in *The Wall Street Journal*, January 1, 4, 5, 14, 24, February 1, 3, 10, 21, 1927.

[68] Hugh R. Wilson, *Diplomat Between Wars* (New York and Toronto: Longmans, Green and Co., 1941), p. 179.

[69] Sheffield to Chandler P. Anderson, July 1, 1926, Sheffield Mss.

[70] Chandler P. Anderson *Diary*, October 29, 1926, Chandler P. Anderson papers, Division of Manuscripts, Library of Congress.

[71] *Assistant Secretary of State Memorandum*, W.R.C. [William R. Castle] February 1, 1927, R.D.S., 711.12/1102; for information about Castle see L. Ethan Ellis, *Frank B. Kellogg and American Foreign Relations, 1925-1929* (New Brunswick, N.J.: Rutgers University Press, 1961), pp. 12-13.

V. 18

WEST GEORGIA COLLEGE
STUDIES IN THE SOCIAL SCIENCES

Volume XVIII June, 1979

# THE SOUTHEASTERN UNITED STATES: ESSAYS ON THE CULTURAL AND HISTORICAL LANDSCAPE

RECEIVED
NOV 1, 1980
PERIODICALS DEPT.
Irvine Sullivan Ingram Library
CARROLLTON, GEORGIA

Published by
WEST GEORGIA COLLEGE
A Division of the University System of Georgia
CARROLLTON, GEORGIA

WEST GEORGIA COLLEGE
STUDIES IN THE SOCIAL SCIENCES

Volume XVIII June, 1979

# THE SOUTHEASTERN UNITED STATES: ESSAYS ON THE CULTURAL AND HISTORICAL LANDSCAPE

## CONTENTS

Page

Contributors ..... iii

Foreword ..... v

Preface ..... vi

The Role of Ferryboat Landings in East Tennessee's Economic Development, 1790-1870 ..... *Tyrel G. Moore* 1

Spatial Strategies in Railroad Planning in Georgia and the Carolinas, 1830-1860 ..... *David C. Weaver* 9

Functional and Spatial Patterns of Georgia Short Line Railroads, 1915-1978 ... *W. Theodore Mealor, Jr.* 25

Expansion of the Pine Oleoresin Industry in Georgia: 1842 to Ca. 1900 *Jeffrey Dobson and Roy Doyon* 43

The Georgia-Florida Land Boundary: Product of Controversy and Compromise ..... *Burke G. Vanderhill* and *Frank A. Unger* 59

The Decline of Smokehouses in Grainger County, Tennessee . *John B. Rehder, John Morgan,* and *Joy L. Medford* 75

Prolegomenon to Future Research on Black Agriculture in the South ..... *J. Brady Foust* and *Ingolf Vogeler* 85

# TITLES IN PRINT

Vol. III, 1964, *The New Europe.*

Vol. IV, 1965, *The Changing Role of Government.*

Vol. V, 1966, *Issues in the Cold War.*

Vol. VII, 1968, *Social Scientists Speak on Community Development.*

Vol. VIII, 1969, *Some Aspects of Black Culture.*

Vol. XI, 1972, *Georgia Diplomats and Nineteenth Century Trade Expansion.*

Vol. XII, 1973, *Geographic Perspectives on Southern Development.*

Vol. XIII, 1974, *American Diplomatic History: Issues and Methods.*

Price, each title, $2.00

Vol. XIV, 1975, *Political Morality, Responsiveness, and Reform in America.*

Vol. XV, 1976, *The American Revolution: The Home Front.*

Vol. XVI, 1977, *Essays on the Human Geography of the Southeastern United States.*

Vol. XVII, 1978, *Dependency Unbends: Case Studies in Inter-American Relations.*

Price, each title, $3.00

Copyright © 1979, West Georgia College

Printed in U.S.A.

Thomasson Printing Co., Carrollton, Georgia 30117

Price, $3.00

*West Georgia College is an Affirmative Action/Equal Opportunity Employer*

# CONTRIBUTORS

DOBSON, JEFFERY R., received the B.A., M.A., and Ph.D. degrees from the University of Georgia. His teaching and research interests include land use, resource utilization, and vegetation. Dr. Dobson has taught most recently at the University of Illinois and Ohio State University and is presently a post-doctoral associate at the University of Georgia.

DOYON, ROY, received the M.A. in history from the State University of New York at Oneonta. He is presently a Ph.D. candidate in historical geography at the University of Georgia where his research interests lie in historical landscapes of the South.

FOUST, J. BRADY, received the Ph.D. degree from the University of Tennessee and is presently Associate Professor of Geography and Department Chairman at the University of Wisconsin-Eau Claire. His research interests include agriculture, manufacturing, and urban systems. He is the co-author of *The Economic Landscape: A Theoretical Introduction and World Space Economy* and has published articles on economic geography in professional journals.

MEALOR, W. THEODORE, JR., holds the B.A. degree in history from the University of Florida and the M.A. and Ph.D. in geography from the University of Georgia. His research interests are focused on land use, transportation and remote sensing. Dr. Mealor has contributed articles to various journals including the *Annuals* of the Association of American Geographers and *Photogrammetric Engineering and Remote Sensing.* Presently he is Professor of Geography and Chairman of the Department of Geography at Memphis State University.

MEDFORD, JOY, received the B.A. degree from Wright State University and is presently a M.S. candidate in geography at the University of Tennessee, Knoxville. Her research interests are in the development of cultural and historical landscapes in the South. Ms. Medford is currently working in Eastern Tennessee.

MOORE, TYREL G., received the M.S. degree in geography from the University of Tennessee, Knoxville, where he is a candidate for the Ph.D. degree. His research interests include cultural and historical geography of the southeastern U.S., particularly southern Appalachia. He is presently an Instructor in Geography at Western Kentucky University, Bowling Green.

MORGAN, JOHN, received the B.A. and M.A. degrees from East Carolina University and is presently a Ph.D. candidate in geography at the University of Tennessee, Knoxville. Mr. Morgan's research and teaching interests are in the areas of agriculture and rural economics.

REHDER, JOHN, received the B.A. degree from East Carolina University, and the M.A. and Ph.D. degrees from Louisiana State University. His teaching and research interests are concentrated in rural settlement geography, cultural geography, and remote sensing. His publications currently total more than twenty five in article, book chapter, and monograph form. He is currently chairman of the Remote Sensing Committee of the Association of the American Geographers and is associate editor of RSEMS (Remote Sensing of the Electromagnetic Spectrum). His current research is in the Historical Buildings Surveys of Grainger, Union, and Hancock counties, Tennessee. Dr. Rehder is presently Associate Professor of Geography at the University of Tennessee, Knoxville.

UNGER, FRANK A., holds the M.S. degree in geography from Florida State University and presently is director of FSU's Florida Resource and Environmental Analysis Center. His research has emphasized public lands in Florida and the problems of property lines and boundaries, and he has co-authored an earlier article in *West Georgia College Studies in the Social Sciences.*

VANDERHILL, BURKE G., is Professor of Geography at Florida State University and earned the Ph.D. degree at the University of Michigan. He has contributed numerous articles to American and foreign professional journals, many of which have dealt with North American frontiers of settlement. Studies in the historical geography of Florida and Georgia have appeared in *Southeastern Geographer, Florida Historical Quarterly,* and in earlier issues of *West Georgia College Studies in the Social Sciences.*

VOGELER, INGOLF, received his doctorate from the University of Minnesota and is currently Assistant Professor of Geography at the University of Wisconsin-Eau Claire. His research interests focus on the underdevelopment of rural areas in North America. His twenty published articles include studies on the cultural landscapes of South Dakota Indian reservations, the Appalachian peasant culture region, the significance of subsistence farming in the United States and the preservation of prime agricultural lands. He is writing a book, *The Myth of the Family Farm,* on U.S. agricultural problems.

WEAVER, DAVID C., received the B.A. degree from the University of Manchester (U.K.) and the M.A. and Ph.D. degrees from the University of Florida. His teaching and research interests include regional and urban planning, land use analysis and environmental management. Dr. Weaver is currently Associate Professor of Geography at the University of Alabama, Tuscaloosa.

# FOREWORD

This volume continues the precedent of utilizing the services of a volume editor working under the loose supervision of a general editor, a policy begun with the 1973 issue of *Studies in the Social Sciences.* Reponsibility for selecting the theme of the present volume, the essays herein included, and initial editorial refinement was that of the volume editor. The role of the general editor was limited to broad consultation with the volume editor, final editing, and liaison with the printer.

Volume topics for the past seven issues of *Studies* have rotated among various social science disciplines. This year's volume is the third issue to be devoted to facets of the cultural and historical geography of the Southeastern United States.

As in the past, this journal is financed partially by the University System of Georgia. It is distributed gratis to libraries of state supported colleges and universities in Georgia, and to selected institutions of higher education in each southern state. Interested individuals or libraries may purchase copies of the journal for $3.00 each to help defray printing and mailing costs. Standing orders for the annual series are available at the reduced rate of $2.00.

It is with considerable pleasure that the editors submit to you this volume on the Southeast.

John C. Upchurch
Professor and Chairman
Department of Geography
*General Editor*

# PREFACE

Two previous volumes of *Studies in the Social Sciences* have had Southern cultural and historical geography as their theme. Because both issues have been well received, it was decided to produce a third volume with a similar regional and thematic focus.

The present issue contains seven articles relating to matters that range widely in temporal and topical content. As such they represent the wide range of research interests among geographers who are students of the U.S. South. The essays of Moore, Weaver, and Mealor emphasize the importance of transportation in the development of Southern landscapes. Dobson and Doyon illustrate the significance of the oleoresin industry in Georgia. Vanderhill and Unger continue the theme of historical and geographical development with a review of the difficulties encountered in establishing the Georgia-Florida boundary line. Rehder, Morgan, and Medford's analysis of smokehouses as indicators of changing cultural landscapes illustrate how even subtle aspects of a vanishing landscape can provide valuable insights. Foust and Vogeler stir a radical theme in southern research with their call for deeper investigative approaches in studying Black agriculture in the South.

The objective of this volume is to present samples of research being conducted by those studying aspects of Southern historical and cultural geography. The editors believe that this volume meets this objective.

James R. O'Malley
Associate Professor of Geography
*Volume Editor*

# THE ROLE OF FERRYBOAT LANDINGS IN EAST TENNESSEE'S ECONOMIC DEVELOPMENT, 1790-1870

By Tyrel G. Moore

Ferryboat landings played a significant role in the development of economic patterns in East Tennessee during the eighteenth and nineteenth centuries. In 1871 a traveler from New York described Chattanooga's ferryboat as a quaint Southern institution outdated by bridging in the Northeast.[1] Ferries were neither quaint or exceptional to East Tennesseans; they were important elements of the transportation network. East Tennessee's early settlement had oriented transportation patterns to the valleys of the Holston, French Broad, and Tennessee rivers where settlers found productive agricultural land (Figure 1). These and other streams produced frequent interruptions for travel and gave rise to the problem of establishing reliable stream crossing methods.

As in the rest of the South, transportation improvements were more slowly realized than in other parts of the eastern United States, and the earliest bridges across East Tennessee's larger streams were not built until after 1850, nearly eighty years after initial settlement took place.[2] Before that time, stream crossing methods were limited to ferrying and fording. Both were widely used, but ferries became more common on important routes and were the chief means of stream crossing from the 1790s to the 1920s. During this period ferryboat landings were more than convenient places to cross a river. Their sites also held locational advantages which attracted locally important service functions. This paper examines the ways in which ferry crossing sites complemented other elements of the transportation and economic systems to stimulate economic development from the 1790s to the 1870s.

Because they were privately established in anticipation of profits from tolls, most ferries had to be located on routes of either local or regional significance. Site selection was also based on physical characteristics which caused ferries to be more common on important routes. Fording was limited where water depths exceeded three feet or so, especially if wagon cargoes were subject to water damage, and was most easily accomplished at points where streams flowed over beds of sand and gravel.[3] Fords established on uneven, rocky stream beds were difficult to negotiate and were avoided if the stream could be crossed by ferry at some nearby point.[4] Before and after the organization of state government in 1796, road building and maintenance followed the Anglo-Saxon tradition of communal responsibility, which lacked engineering skills and finances.[5] The state government could not assume financial responsibility for internal

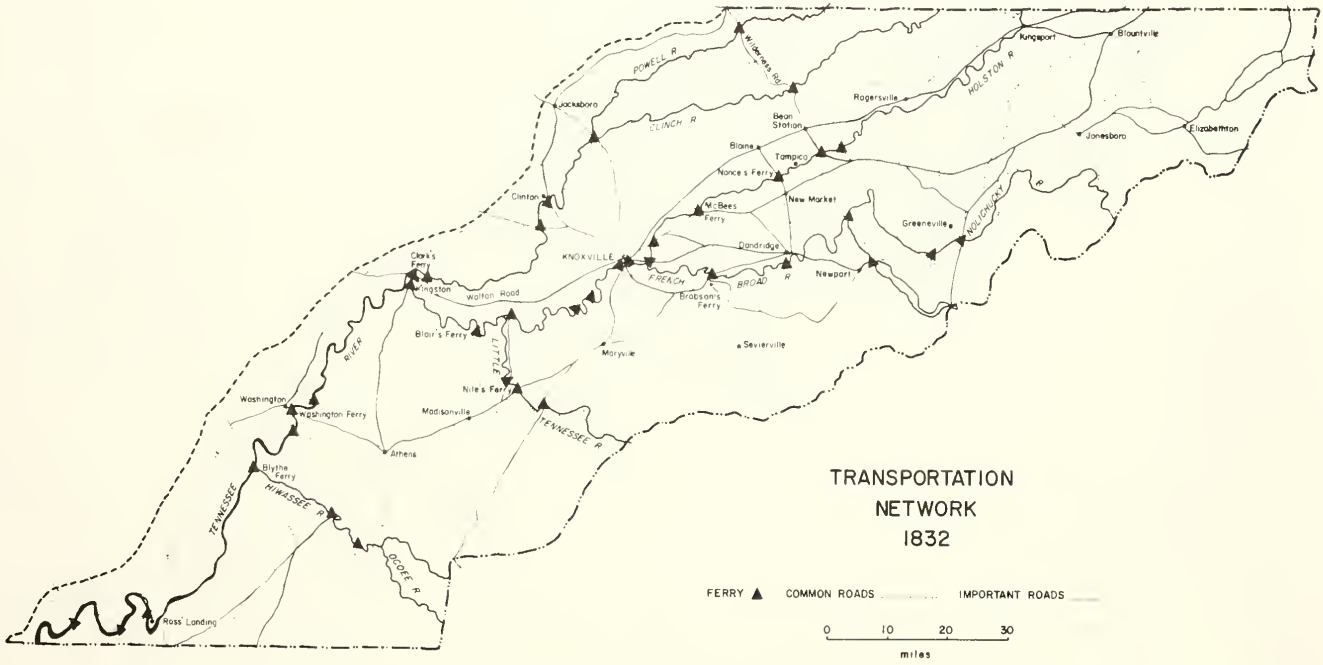



Figure 1

"Transportation Network 1832" adapted from Matthew Rhea's *Map of the State of Tennessee, 1832.*

improvements, and the resultant system of routes varied in quality from county to county.[6] These conditions made travel slow and difficult and gave rise to multiple services provided at ferry landings.

Permission to operate ferries was granted by county courts which regulated tolls and required ferry owners to keep "ordinaries," or inns, at their crossing sites.[7] Entries appearing in *County Court Minute Books* between 1796 and 1820 suggest that McBee's Ferry, which crossed the Holston River about twenty miles north of Knoxville, was typical of others in East Tennessee (Figure 1). Travelers' accounts from the period reveal that McBee's was a popular overnight stop and travel service center.[8] In 1795 McBee advertised his blacksmithing services and stated that travelers could be supplied with liquors, corn, oats, and fodder.[9] These accommodations eased the hardships of travel and provided an outlet for local agricultural commodities.

Similar arrangements were found at Clark's Ferry, near the present site of Kingston, where the major route from Knoxville to Nashville crossed the Clinch River (Figure 1). Warehouses stocked with locally produced agricultural commodities and a trading post were located near the ferry landing. For west-bound travelers this was the last service center to be found for the next one-hundred miles across the Cumberland Plateau.[10] The availability of goods and services seems also to have influenced the success of the ferry. Toll rates set at 12½c for a single horseman and one dollar for a loaded wagon and team often provided the ferryman with a daily income of twenty dollars in 1799.[11] A ford, passable for about eight months of the year, was located a short distance upstream but was seldom used.[12]

While services available at ferry crossings contributed to local trade, the activities of at least one site led to a significant permanent settlement. A ferry, flatboat landing, and warehouse were established in 1815 on the Tennessee River near Moccasin Bend. The community, Ross' Landing, immediately became a center of trade between the whites and the Cherokee Indians.[13] The ferry subsequently served the western arm of the Federal Road from northwest Georgia to Nashville.[14] In 1837 Ross' Landing became known as Chattanooga.

Around 1830 a new era of commercial development came with the arrival of the steamboat. Regular service was established between Knoxville and Ross' Landing, and routes extended up the Clinch River to Clinton, the French Broad to Dandridge, and the Holston to Tampico (Figure 2).[15] Flatboats and keelboats had been used on the Tennessee and its tributaries for a number of years, and their use was stimulated with the advent of steam navigation.[16]

The transportation of agricultural commodities overland and by flatboat to steamboat landings became a common practice, and ferry crossing sites played an important role in this commodity flow. Ferries served as trans-shipment points between wagon and water transport

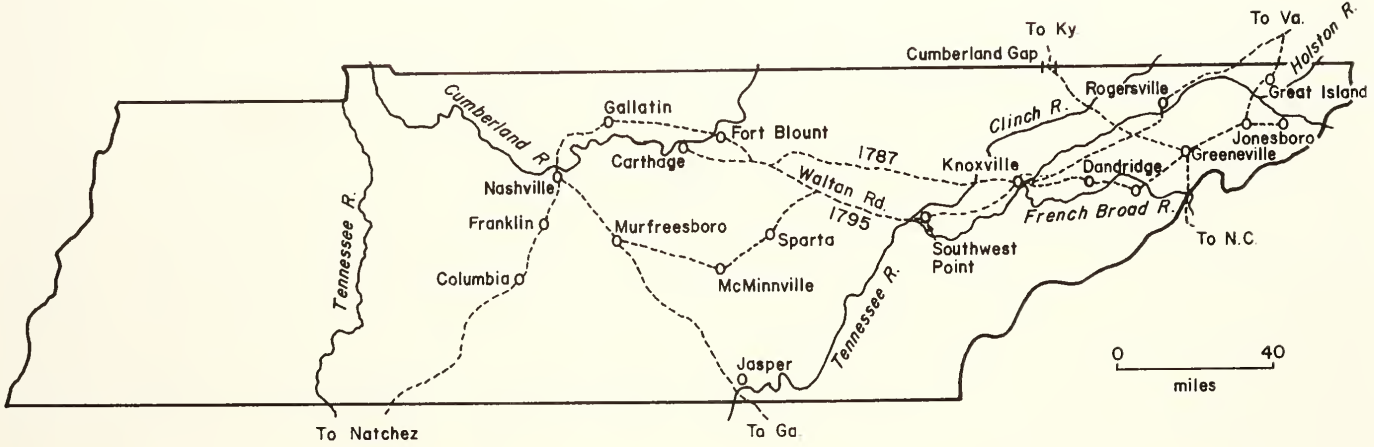



Figure 2

"Early Roads" in Tennessee, CA:1800, Adapted from Thomas P. Abernathy, *From Frontier to Plantation in Tennessee, 1832.*

and were staging areas for down-river flatboat movements.[17] Ferry landings on steamboat routes also were potential steamboat landings and were used when local cargoes provided a profitable stop.[18]

Country stores became significant trade centers in this system of commerce, and were often located near ferry landings in order to take advantage of water transport.[19] Local agricultural surpluses such as hogs, bacon, lard, flour, and dried fruits were collected at these stores and traded for coffee, sugar, salt, and manufactured goods arriving from distant centers.[20] A clear example of this pattern of trade was the operation of the ferry and store at Pinhook Landing on the Tennessee River (Figure 3). The crossing site, established before 1857, connected Spring City and Decatur, and was one of a number of steamboat landings between Chattanooga and Knoxville. The site served as a warehousing point for shipments of local agricultural products and as a ditribution point for merchandise from Chattanooga and Knoxville.[21] Other ferry landings, such as Nance's Ferry on the Holston River, and Niles's Ferry on the Little Tennessee River, were useful places for collecting farm products marketed in Knoxville and Loudon.[22]

The ferry landing's focal role in this pattern of trade persisted well beyond the 1830s, as illustrated in the 1871 manifest of a steamer arriving in Knoxville from Bryant's Ferry on the French Broad River near Dandridge in Sevier County. The cargo, which was described as typical, consisted of 11 sacks of corn, 80 sacks of flour, 26 sacks of potatoes, 8 sacks of bran, 64 sacks of oats, 100 pounds of bacon, and 6 cans of lard.[23] Although the ubiquitous country store was not mentioned in this particular instance, the quantity of goods taken aboard at the ferry suggests that there was some system of collection prior to shipment. Such arrangements made it economical for individual farmers to market their products at scales of operation which could not bear the expense of extended wagon or rail transportation.[24] These localized patterns collectively gave regional significance to the marketing system that revolved around the integration of water and land transportation systems. Ferry landings had become key elements in an economic pattern that would be maintained until transportation technology changed after the turn of the century.

The economic importance of both ferries and steamboats declined dramatically as increased motor vehicle traffic diverted commodity flows away from water transport in the twentieth century. Highway improvements followed the availability of federal funds in 1916, and by 1922 only ten per cent of Tennessee's vehicle traffic was horse-drawn.[25] While a fifteen to thirty minute delay for stream crossing may have represented a welcome rest stop in the horse and wagon era, this interruption was annoying to motorists who had become accustomed to shorter travel times. Increased accessibility to larger trade centers also disminished the widespread influence of the country store, thus taking away another element that had given economic prominence to ferryboat landings.

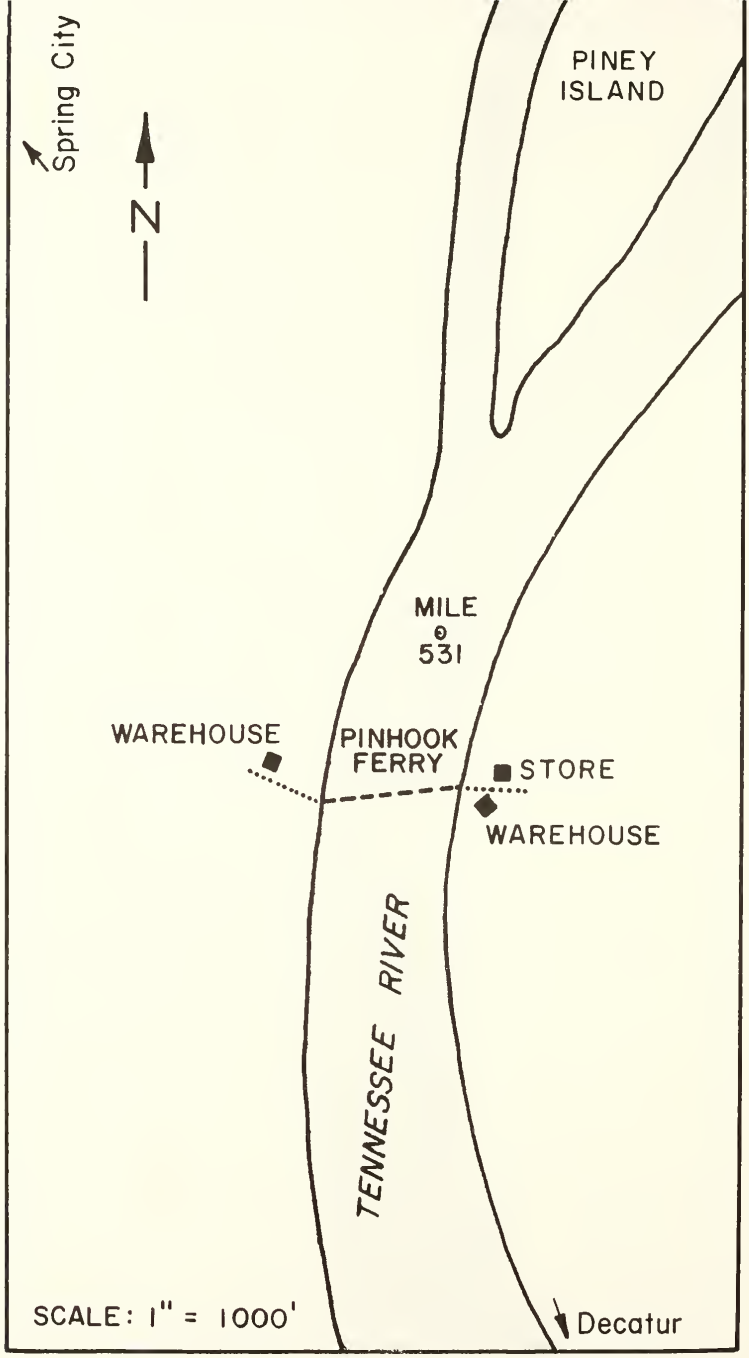



Figure 3
"The Pinhook Ferry and Related Trade Facilities," adapted from Burnett and Cloverdale, *An Archaeological and Historic Survey of the Watts Bar Steam Plant Fly Ash Disposal Pond Extension.*

Before their decline ferry landings had functioned as trading centers for travelers, outlets for local agricultural products, and as an effective interface between land and water transportation. In these ways they had done much to direct the flows of goods and people over the area which shaped the economic patterns of the eighteenth and nineteenth centuries. In their passing, remnants of their operation have become part of the present cultural landscape. Local routes in the area continue to bear the names of ferries which once served them. In other instances roads terminate at stream banks where they were once linked by a ferry crossing. These features are reminders of an historically important transportation system which contributed to the early settlement and development of East Tennessee.

## NOTES

[1] O.B. Bunce, "Lookout Mountain and the Tennessee," in William Cullen Bryant's *Picturesque America,* Vol.1 (New York: D. Appleton and Company, 1872), pp. 66-69.

[2] Balthasar H. Meyer, ed., *History of Transportation in the Eastern United States before 1860* (New York: Peter Smith, 1948), p. 50 and David E. Donley, "The Flood of March 1867, in the Tennessee River," *East Tennessee Historical Society Publication No. 8* (1936), p. 84.

[3] Milton B. Newton, Jr., "Route Geography and the Routes of St. Helena Parish, Louisiana," *Annals* of the Association of American Geographers, Vol. 60, Number 1 (March 1970), p. 139.

[4] *Knoxville Times,* May 24, 1839.

[5] Thomas P. Abernethy, *From Frontier to Plantation in East Tennessee* (Chapel Hill: The University of North Carolina Press, 1932), pp. 152-156.

[6] Stanley J. Folmsbee, *Sectionalism and Internal Improvements in Tennessee, 1796-1845* (Knoxville: East Tennessee Historical Society, 1939), p. 38.

[7] Albert C. Holt, "Economic and Social Beginnings of Tennessee," unpublished Doctoral Dissertation, George Peabody College, 1923, pp. 96-97.

[8] For detailed observations of the area's travel conditions, see Samuel Cole Williams, ed., *Early Travels in the Tennessee Country, 1540-1800* (Johnson City, TN: Watauga Press, 1928) and F.A. Michaux, "Travels to the West of the Allegheny Mountains, 1802," Vol. III, pp. 105-306, in *Early Western Travels 1748-1846,* Reuben Gold Thwaites, ed. (Cleveland: The Arthur H. Clark Co., 1904), p. 206.

[9] *Knoxville Gazette,* Feb. 3, 1795.

[10] Samuel Cole Williams, ed., "Report of Steiner and de Schweinitz," *Early Travels in the Tennessee Country* (Johnson City: Watauga Press, 1928), pp. 501-502.

[11] *Ibid.*

[12] Samuel Cole Williams, ed., "The Executive Journal of John Sevier," *East Tennessee Historical Society Publication Number 6,* 1934, pp. 107-108.

[13] Gilbert E. Govan and James W. Lovingood, *The Chattanooga Country: 1540-1951* (New York: E.P. Dutton and Co., Inc., 1952)

[14] John H. Goff, "Retracing the Old Federal Road," *The Emory University Quarterly*, Vol. VI, No. 3 (October 1960), pp. 167-171.

[15] Donald Davidson, *The Tennessee, Volume I: The Old River: Frontier to Secession* (New York: Rinehart and Company, Inc., 1946), pp. 160-162.

[16] Folmsbee, *op. cit.*, p. 11.

[17] Interview with Mr. Wilson Nance, owner and operator of Nance's Ferry, New Market, Tennessee, August 23, 1974.

[18] Interview with Mr. Sam Breeden, Knoxville, July and August, 1975. Mr. Breeden, and engineer with the State Highway Department in the 1920s and 1930s, has given considerable study to the history of steamboating in East Tennessee.

[19] Lewis E. Atherton, *The Southern Country Store, 1800-1860* (Baton Rouge: Louisiana State University Press, 1949).

[20] J. Gray Smith, *A Brief Historical, Statistical, and Descriptive Review of East Tennessee, U.S. of A.* (London: J. Leath, 1842), p. 2.

[21] Interview with Mr. and Mrs. J. Howard Hornsby, last owners of the Pinhook Ferry.

[22] Mayme Parrott Wood, *Hitch-hiking Along the Holston River 1792-1962* (Gatlinburg: Brazos Printing Company), pp. 37-38.

[23] *Knoxville Daily Chronicle*, September 9, 1871.

[24] Bunce, *op. cit.*, p. 69.

[25] Tennessee State Department of Highways and Public Works, *Report of the State Highway Commissioner of Tennessee: For the Biennium Ending June 30, 1928*, (January, 1929), p. 27.

# SPATIAL STRATEGIES IN RAILROAD PLANNING IN GEORGIA AND THE CAROLINAS, 1830-1860

By David C. Weaver

The expansion of agriculture and the rise of the crossroads villages and country stores on the Piedmont of Georgia and the Carolinas after 1800 had a profound effect on the prevailing transportation systems of the three states. The great influx of settlers to the areas above the Fall Line intensified the need for a cheaper and more reliable mode of transportation than the horse and wagon. The trend of the southeastern economy toward specialization in staple crops further accentuated this demand.

Merchants were affected as much as producers by the demographic and economic shifts. Competition for back country trade became more intense as marketing opportunities and service centers multiplied. Services moved consistently closer to their consumers as population became more dense and capable of supporting them. The process of trade expansion was cumulative. Populations on the outer edge of the agricultural frontier moved rapidly, outpacing in most instances in the inland movement of supply centers. They were, as a result, forced to rely on difficult journeys to distant markets. Slowly intermediate wagon yards and country stores appeared in the more densely populated areas behind the frontier to facilitate the process of marketing frontier produce. These groups of stores gradually became small towns which equipped themselves to service the wagon trade that had previously flowed to seaboard communities.

The effects of the parallel processes of urbanization and specialization were so widespread and obvious that coastal cities and interior towns quickly became aware of the changes that were taking place. The frustrations of the upland trade centers in their poor ability to move goods, and the fears of the coastal ports that they were losing their traditional trade positions, induced statewide perceptions that the existing road-river transportation system had become completely inadequate for he demands of trade. Repeated disappointments with canals and steamboats were major factors arousing sentiments in favor of railroads in both the Carolinas and Georgia.

Basically, the railroad programs evolved from the same causes that had given impetus to earlier road and navigation improvements; the desire of ports to maintain and increase their commerce, increased trade competition between inland service centers, the need to accommodate a shifting agricultural base, and the general demand for speedier communications between the various sections of the states. All of these considera-

tions created a situation where the advantages of railroads as public carriers could be effectively promoted. The result was a massive expansion of that transportation form after 1830 which completely overshadowed other communications activity in the region.

The reason why railroads came to be viewed as such breathtaking innovations and achieved such rapid acceptability in Georgia and the Carolinas was that they worked in almost all types of weather and were more versatile with respect to terrain and less costly than canals. Furthermore, the railroad could be easily accommodated to a system of private property reversing both the trend towards and the political and financial problems associated with the public ownership and operation of transportation arteries begun with the building of turnpikes and canals. This private property aspect of the railroad gave the initiative for development to local individuals. No longer were planters in insolated counties forced to petition their legislature and wait for action. After acquiring charters, groups of citizens from all over a state could solve their transportation problems by building railroads themselves.

Because so much of the early railroad construction was determined by the flow of private capital, and organized through private companies, most of the existing literature on early railroads treats the role of speculative mania, fast-buck promoters, and other better motivated entrepreneurs in rail development. Emphasis is also placed on the prevalent conditions of unrestrained competition which resulted in unnecessary and inefficient duplication of facilities, and a pattern of piecemeal development characterized by excessive flurries of construction activity stimulated by the availability of cheap money. Largely neglected by study to date is the fact that while many railroad developments were influenced by the basest of mercenary considerations, many others resulted from grand designs for regional development, and were conditioned by a variety of considerations related to the prevailing spatial economy into which they were introduced. This study attempts to illustrate some of the geographic and planning considerations, both regional and parochial, which characterized railroad building in Georgia and the Carolinas before 1860.

## EARLY RAILROAD DEVELOPMENTS IN SOUTH CAROLINA

The first expression of public support for railroads in the southeast was that for the Charleston and Hamburg project, the first totally steam operated line in the United States. The alignment of the road was determined by two factors, the level nature of the terrain and the spatial organization of Charleston's existing trade area.[1] Charleston merchants were aware by 1827 that the growth of the South Carolina Fall Line towns—Columbia, Camden, and Cheraw—had cut into their retail traffic. They also knew that the port was not getting its share of increased business from the spread of cotton production to the interior.[2] Railroads to these towns, however, seemed unlikely to improve Charleston's trading position

a great deal. Rivers and canals already afforded a means of bringing cotton from lands around the Broad, the Wateree and Peedee to Charleston. The city was still getting their import-export business and seemed likely to do so. The new road was given priority over alternative Columbia and Camden routes simply in an attempt to divert the Savannah river trade to Charleston.

There was a distinct lack of enthusiasm for the line in areas other than those through which it was projected to pass.[3] Subscription books were open for four days at Columbia, Camden, and Hamburg without a share being taken. Charleston, including the city government, the banks, and insurance companies, supplied all the money. It was a Charleston effort to revive Charleston. In Hamburg's case the lack of interest was due to the fact that its connections with Savannah and Charleston via the Savannah River, were reasonbly satisfactory. The other towns were little interested in a project to improve the economic welfare of Charleston and even less in promoting the interests of Fall Line business rivals. Also the road did not appear to offer any real prospect of filling the transportation needs of the uplands.

The railroad between Charleston and Hamburg was completed in 1833 and Charleston's commerce increased after its construction.[4] Charleston was delighted and began to consider a transmontane line that would tie the city to the rapidly expanding agricultural regions of the Middle West. It was hoped that such a connection would make Charleston not only the chief commercial center of the South, but also assure its position as the dominant east coast seaport with extensive inland connections and a volume of traffic rivaling that of New York and the other major Atlantic ports.

The main line of the projected railroad was to start at Charleston then run through middle South Carolina and western North Carolina, over the mountains and through the valleys of eastern Tennessee and Kentucky to a terminal at Cincinnati. Its potential linkages raised even greater prospects. Cincinnati had either completed or begun connections by river or canal with western Pennsylvania, the rest of Ohio, Indiana, Illinois and other areas adjacent to the Great Lakes. The more farsighted South Carolina railroad promoters looked to a time when large areas of the Midwest would become tributary to Charleston instead of other Atlantic coast cities.[5] The Cincinnati and Charleston Railroad Company was approved by charter in South Carolina in 1835. Charleston subscribed a substantial amount of money but the other states through which the line was to pass, particularly Tennessee and Kentucky, showed little interest.[6] As a result, the idea foundered at this time for primarily financial reasons, although it was revived at frequent intervals up to the end of the century.[7]

One consequence of the Cincinnati-Charleston project in the 1830s was the completion of a spur of the South Carolina Railroad to Columbia. This branch was intended eventually to be the stem for the transmontane

line and was notable for its indirect alignment with respect to Charleston. In order to provide the most economical construction, the line was laid in such a way as to provide the shortest link between Columbia and Camden and a point on the South Carolina Railroad northwest of Charleston. The result was a line, completed in 1842, running southeast from Columbia, along the Saluda to a point southwest of Camden, where it turned southwest to cross the Saluda and strike the Hamburg line at Branchville. Immediately after the Columbia Branch was completed, Camden began to campaign for its own connection to the line. The railroad company agreed to put up a number of shares equal to that subscribed by private individuals if a right of way could be secured. These conditions were met, and the line was completed in 1848.

## EARLY RAILROAD BUILDING IN GEORGIA

At the same time that Charleston was promoting the transmontane line the city was also encouraging Athens, Georgia, to build a railroad west from Augusta to link the central Piedmont of Georgia to the Hamburg road.[8] The promotion of the Georgia Railroad began the most sustained and perhaps the most acrimonious of the railroad based trade area conflicts in the South before 1860. Before Charleston's backing of the Georgia R.R., Savannah had been somewhat reluctant to consider a railroad development to the Piedmont because of the costs of building across the pine barrens, which were functionally a population desert.[9]

Savannah had long felt secure in its monopoly of the Savannah river trade, but the advent of railroad construction in South Carolina threatened this old order. With the completion of the Charleston and Hamburg R.R. in 1833, no city in Georgia saw more clearly the threats and advantages of railroad expansion to the maintenance of its trade hinterland than Savannah.[10] This perception was heightened as the Georgia R.R. became virtually an extension of the Charleston and Hamburg.

As Charleston developed a rail connection with the heart of upper Georgia draining away some of Savannah's established trade, the question for Savannah became not whether but where to build. Columbus, Macon, and Milledgeville all solicited Savannah's favors but Macon promised to supply more subscription funds. In 1833 a group of Savannah businessmen secured a charter to run a railroad to Macon, hoping to assure for themselves through it the trade of the central and western part of the state. Of the 12,308 shares sold in the company, the city of Savannah took 5,000 and the city of Macon 2,500. Milledgeville and Sandersville were the other major contributors.[11]

Places throughout the Piedmont with the exception of Augusta were interested in connecting with the Savannah line. Augusta felt that on the one hand a railroad to Augusta would be a distinct advantage but on the other it would probably divert the trade of the town and the plantations southwest of Augusta away from the town to Savannah. For some years

the latter was the prevailing consideration. Also, the Georgia Railroad, at Charleston's instigation, threw its influence against any proposal for an Augusta connection with the Central.[12] Despite Augusta's disinterest, the Central of Georgia and the city of Savannah decided in 1847 to put up the money for a railroad into Augusta from the south.[13] The line from Millen on the Central to Augusta was completed in 1854. This move only increased the hostility of the two lines which competed for control of the trade of the Georgia cotton belt.

Competition between the two companies for tributary traffic was inevitable. The two railroads paralleled each other for a considerable distance and more frequently were less than fifty miles apart. As a result they vied constantly for the trade and traffic of this somewhat narrow corridor which separated them. One of the specific issues related to this competition which gave rise to great irritation between the two companies was a proposal by the Georgia Railroad to extend its Warrenton spur into a branch to Macon.[14] This would have established a direct line between Macon and Augusta and introduced a threat from Charleston to the traffic of south-central and western Georgia which Savannah considered itself to have pre-empted. Some of the communities to be connected by this route, such as Sparta and Milledgeville, actively promoted the plan, and Macon, Augusta, and Charleston lent their support.

At first the Georgia Railroad used the plan as a bargaining chip in a defensive strategy aimed at limiting the Central's expansion to the south and west. The Georgia R.R. suggested that any expansion by the Central would result in countervailing moves by the Georgia R.R. with the Warrenton spur as the stated example. In 1860 the Georgia Railroad changed its posture, however, and shifted to an offensive strategy, committing itself to the implementation of the Warrenton project. The Central, not to be outdone, immediately announced a planned retaliatory extension to Union Point which would give it an entry to the Athens trade focus. Although the onset of the way delayed completion of the Central project for some years, this localized contest provides a good example of the balance of forces and the types of tactics which characterized early railroad development strategy in the three state area.

## EARLY RAILROAD DEVELOPMENT IN NORTH CAROLINA

The apparent success of the Charleston and Hamburg in South Carolina stirred similar action in North Carolina and Virginia. Wilmington, Petersburg, and Norfolk all combatted each other for the Roanoke valley trade by building railroads to tap that river at the Fall Line.[15] The Petersburg road was constructed first, generating a quick reaction from Norfolk. The roads of both cities competed for locational advantages on the Roanoke. Petersburg won temporarily by construction of a short line from its initial route to Gaston above the Fall Line.[16] Feeling threatened, North Carolina's business interests began in 1833 to demand a

response to the Virginia challenge.

The Wilmington and Raleigh Railroad Company, chartered in 1834, was chiefly a Wilmington enterprise to connect North Carolina's leading port with its capital city.[17] When the citizens of Raleigh failed to subscribe their share of stock, the company decided to build the railroad from Wilmington to Weldon on the Roanoke where it was hoped that connection and competition would take place with the Virginia roads. Upset by the shift in terminus, Raleigh businessmen promoted and obtained a charter for their own road, the Raleigh and Gaston. The line ran from Raleigh to Gaston to connect with the railroad from Petersburg. It was strongly supported by Virginia interests and opposed by Wilmington. Both companies were organized and operated as private corporations and neither originally expected aid from the state.[18] Eventually both were obliged to ask the state for assistance in order to complete their lines, but the aid was relatively small.

## PLANNING STRATEGY IN THE THREE STATES

By the 1840s, and with the completion of the first North Carolina lines, a distinct pattern of railroad expansion had begun to appear in Georgia and the Carolinas. In all three states the planning and operating controls on expansion were being exerted by the commercial and financial powers in the territory drained by the roads. The economic horizons of these decisionmakers rarely extended beyond their city or port, resulting in a provincial attitude toward railroad function. They conceived the railroad as their most potent weapon in the growing commercial rivalry between leading ports and interior distributing centers. In formulating development policy they sought to achieve three basic goals: long-term investment profit, localization of traffic at the principal terminus, and development of the economic resources of the area tributary to the road.

From this localized perspective emerged an operating strategy that guided railway policy in the three states before the Civil War. According to this idea the railroad existed to service its key terminus and the area tributary to it. The welfare of city, territory, and company alike required that all three realize their mutually dependent relationship and the need to foster it. Basic to this idea was the principle of one railroad for one region or territory, and the need to avoid any road alignment that would carry traffic away from the sphere of the controlling cities.

The description by Julius Gridinsky of this territorial concept as it operated in the west is equally applicable to the southern situation:[19]

> To serve a territory with no railroad was the ambition of every road operator . . . An extensivley controlled local territory was an asset as long as it lasted. A monopoly of this kind was perhaps the most important strategic advantage of a railroad, provided, of course, the monopolized area originated valuable traffic or served as a market for goods produced in other areas.

> Territory thus controlled was looked upon as natural territory. It belonged to the railroad that first reached the area. The construction of a line by a competitor was an "invasion." Such a construction, even by a business friend of the possessing road was considered an unfriendly act. The former business friend became an enemy.

Virtually all of the early railroads were financed by city and private subscriptions with the city providing the lion's share of the money. Because railroad construction was a costly enterprise, only the larger wealthier cities could participate in it. As a result the cities capable of supplying the capital were the ones which shared most in, and benefited most from railroad construction. The arrival of the railroads marked a new stage in the differentiation of the possessors and the non-possessors of trade which had been proceeding since the early days of colonization. With the coming of the railroads, there appeared to be no hope that the small ports could increase their trade. At the same time, the fortunes of the smaller interior towns appeared destined to be subject to the whims of the big city railroad builders.

## THE ROLE OF THE STATES IN RAILROAD PLANNING 1840-1860

To some extent the financial disadvantages of the smaller cities, with respect to railroad building were relieved after 1840 by the intervention of the state legislatures. This was particularly the case in North Carolina where the state decided that it was in the best interests of the people for the government to build a railroad through the middle of the state. The line was projected to run from the Tennessee line to Beaufort, the state's best deep water harbor.[20] This move had two major objectives. One was to cheapen the cost of transportation to the sea for large areas of the North Carolina Piedmont. The second was to keep the traffic in North Carolina commodities in North Carolina during its journey to the sea. North Carolina's port interests constantly complained of losing traffic to Virginia cities.

Due to "pork barrel" political decisionmaking the road was not aligned through the center of the state, as originally planned, but around it in a semicircle from New Bern to Charlotte. It provided, when completed, a solid penetration line between the coast and the mountain fringe, and traffic along it gave New Bern an unexpected lease on life. The road, however, ran through Raleigh and Goldsboro and consequently traffic continued to be lost to Petersburg via the Raleigh and Gaston line, and to Wilmington via the Wilmington and Weldon line.[21] The carefully established gauge differentials of the North Carolina railroad system (more fully treated below), with respect to those of Virginia and South Carolina, were obstacles to the transfer of freight, but they could not counteract the advantages of the shorter distances to Virginia ports from large areas of the North Carolina Piedmont. Only one railroad was built

without substantial state aid in North Carolina between 1840 and 1860. The line from Wilmington to Manchester, South Carolina, was an attempt by Wilmington businessmen to grab a share of Charleston's traditional trade hinterland in eastern South Carolina.[22]

The state of South Carolina took a more piecemeal approach in its support of railroad building. Its standard procedure was to encourage private enterprises to provide the funds for construction. If these attempts failed, the state usually stepped in with supplementary funds to assure completion. Because of this attitude of the legislature, the evolution of the South Carolina railroad network between 1840 and 1860 was somewhat different from that in North Carolina. Instead of a single planned trunk line running from the coast to connect all the important mountain fringe towns, the crooked stem of the South Carolina Railroad was used as the base for any lines which were able to raise the money to build to it. The result was a piecemeal set of lines converging on Columbia from the towns of the mountain fringe, each having short connectors to important Piedmont villages.[23] This construction confirmed the position of Columbia as the outstanding Fall Line mart of the state and concentrated the trade of the Piedmont even further at Charleston, enabling that city to maintain its lead as the largest town of the region.

The regional trading position of Charleston was challenged by both Wilmington and Savannah, and Charleston had to struggle with minimal state aid to defend its territory. It countered the thrust of the Wilmington and Manchester by building the Northeastern Railroad to intersect that line at Florence, and by persuading Cheraw to build a line to Florence to connect with the Northeastern.[24] This drew Cheraw away from Wilmington and into the Charleston orbit. Charleston made a less successful attempt to attract trade from the Savannah River and southeast Georgia by building the Charleston and Savannah Railroad. Little traffic was diverted by this move.

In Georgia the attitude of the state to railroad-building between 1840-1860 was different than that in both of its Carolina neighbors.[25] The Georgia legislature insisted that the railroads of the state be built by private enterprise, avoiding state sponsorship wherever possible.[26] The overriding consideration in railroad building, therefore, became cheap construction. Normally roads were built over the shortest distance available to connect them with the state's two early established trunk roads—the Central of Georgia and the Georgia Railroad. The result, though for entirely different reasons, was circuitous routes to the coast from western Georgia and Alabama similar to that in North Carolina.

Georgia's one great exception to its non-intervention policy was its construction and operation of the Western and Atlantic Railroad. Realizing that there was no hope of raising local capital in the remote and poorly settled area of northwest Georgia, and recognizing the tremendous advantage to the central and southern parts of the state of access to the

food supplies of the Midwest, the state resolved to build a rail connector from the Georgia Piedmont to Chattanooga.[27] The railroad was a link for lines from the Midwest, converging at Chattanooga to the lines already established within Georgia.[28]

The precise language of the Act which established the Western and Atlantic was as follows:[29]

> A railroad communication as a State work and with funds of the State shall be made from some point on the Tennessee River, commencing at or near Rossville, in the most direct and practicable route to some point on the Southeastern bank of the Chattahoochee River which shall be most eligible for the extension of branch railroads thence to Athens, Madison, Milledgeville, Forsyth and Columbus and to any other points which may be designated by the engineer or engineers surverying the same as most proper and practicable and on which the legislature may hereafter determine, provided that no sum greater than three hundred and fifty thousand dollars shall be appropriated annually to the work contemplated by this act shall otherwise direct.

Realizing that the best junction point for branch roads was further east than the river the legislature amended this act the next year so as to provide "That the Western and Atlantic Railroad shall continue from the Southeastern bank of the Chattahoochee River to some point not exceeding eight miles as shall be most eligible for the running of branch roads thence to Athens, Madison, Milledgeville, Forsyth and Columbus, and that the same shall be surveyed and located by the engineers in chief, upon the ground most suitable to answer the purposes herein expressed."

The work was begun in 1837 when Stephen Long, Chief Engineer, located the southern end of the line by driving a stake at a point where the northeast corner of the old car shed was located which was at the intersection of Wall Street and Central Avenue at the southwest corner in the heart of Atlanta. As a result of this judicious investment policy the state of Georgia achieved a deeper penetration of the interior and a more efficient rail network than either North or South Carolina, without compromising the territorial extension of individual railroads within the state.

The completion of this system had been projected as early as 1825 by Governor Wilson Lumpkin. In his book on the *Removal of the Cherokees*, Lumpkin tells of his trip through Cherokee-inhabited Georgia with Hamilton Fulton as a representative of the State Board of Public Works.[30]

> In the year 1825, when I was elected a member of the Board of Public Works by the Legislature of Georgia, and being selected by my colleagues of the Board and by Governor Troup for the purpose, spent the year 1826, in company with Mr. Fulton, the State Engineer, in taking a general reconnaissance of the state,

with a view to a systematic plan of internal improvements. While in this service I devoted my whole time and all the capacity I possessed to acquiring information connected with the business in which I was then engaged. I then came to the conclusion that railroads would prove to be the best possible investment for Georgia and that they would someday directly supersede the navigation of small rivers and most of the canal projects of that day. Moreover I then thought whenever Georgia should find herself prepared to embark on any great work of internal improvement one should commence at Savannah, from thence to Milledgeville and from thence to some point on the Tennessee River, near where Chattanooga is now located. These opinions were not only entertained but freely expressed, officially and unofficially, upon proper occasions.

## OTHER EXPRESSIONS OF TERRITORIAL STRATEGY

In overall perspective the intervention of the states in railroad building after 1840 had little effect on basic concepts developed in the earlier period. Territorial strategies, emphasizing the conscious avoidance of connections with competing lines and the countering thrusts from opposing trade areas, continued to prevail. These strategies were primarily responsible for the disjointed and fragmented character of the southeastern rail network before 1860. The failure to connect Florida and Georgia by rail before 1860 was in part because Florida business interests feared that the trade might be monopolized by Savannah instead of benefiting Florida ports.[31] A through route across the Piedmont region of North Carolina to the northeast was prevented by a gap between Greensboro, North Carolina and Danville, Virginia. The advantages of a line permitting through-traffic to Richmond was recognized early in the century by merchants in western North Carolina. Commercial interests in eastern North Carolina, however, especially those at the port cities of New Bern and Wilmington, allied to defeat all attempts to obtain a charter for such a railroad from the North Carolina legislature until the needs of the Confederacy forced its building. The fear of eastern North Carolina was that the trade of the Piedmont would be diverted from North Carolina ports to Richmond.[32]

Gaps were not the only obstacles to interstate railroad traffic. Gauge differentials provided a more considerable hinderance. The first railroad, the Charleston and Hamburg, adopted a five foot gauge. This influenced consequent railroad construction throughout most of the South. The five foot gauge was adopted exclusively by Georgia, South Carolina and Tennessee railroads and it was the dominant gauge in Kentucky, Mississippi and Alabama. A number of Virginia railroads were standard gauge, as were almost all those of North Carolina, and some short lines in Kentucky and Mississippi. In the case of the short lines, gauge variations

usually reflected local differences in judgement and poor realization of the potential of the railroad as a means of long distance transportation. Railroads in northern Kentucky and northern Virginia adopted the standard gauge in attempts to foster connection to the north across the Ohio and Potomac Rivers where that gauge prevailed. The gauge pattern in North Carolina, however, was an expression of the economic chauvinism of that state.

The resentment of the citizens of North Carolina—particularly those of the east—concerning the flow of North Carolina produce to Charleston, Petersburg, Richmond, and Norfolk, was an important fact of political life in the state from its beginning. The arrival of railroad technology seemed to many North Carolina businessmen their first real opportunity to redress the situation. An internal improvements convention in Raleigh in 1833 adopted a resolution declaring that the state should use its power "in creating and improving markets within her own limits."[33] Standard gauge was selected for the Wilmington and Weldon despite the five foot roads already being built in Georgia, South Carolina and Virginia. After that the state was careful to maintain its own gauge.

There was continued opposition in the state to standard gauge, but the coastal counties, along with Wilmington, New Bern, and Morehead City, always outvoted it. When the line between Greensboro and Danville was built at Confederate demand during the Civil War, eastern interests prevailed upon the legislature to require that it be standard gauge, despite its connection at Danville with the five foot gauge of the Richmond and Danville.[34] Military necessity finally forced the legislature of North Carolina to approve changing the gauge to five feet, but the act by which this was authorized was careful to provide that the gauge would be changed back to standard width within six months after the close of the War. This act, authorized in 1865, was not implemented.

Other obstacles to through traffic were maintained in the Georgia-Carolina railroad network before 1860. Caps between railroads occurred in a number of prominent cities. When the first railroads were built they were regarded primarily as avenues for trade between a port city and its hinterland. As a result they ran to and not through the port cities. Because of noise and fire hazards terminals were normally kept to the edges of cities, allowing no connection with other rail lines to the city, or to the docks for direct transfer of goods to ships. By the 1850s, with the invention of spark arresters, lines were allowed to enter downtown areas, but not to make the physical connections which would permit interchange of rolling stock or facilitate the transfer of freight from one line to another.

Restrictions were maintained by local business groups who either had a vested interest in the transfer business or who wished to increase the trade of their own ports over those of competitors. The terminals of the Central of Georgia, the Savannah, Albany and Gulf, and the Charleston and Savannah Railroads had separate terminals and no physical

connection in Savannah.[35] Not until 1850 did Macon give its consent for the Central of Georgia, the Southwestern, and the Macon and Western to make a junction of their tracks.[36] Only after prolonged opposition in the state legislature was the South Carolina Railroad Company granted the privilege of building a bridge over the Savannah and making a connection with the Georgia Railroad at Augusta. Also at Augusta local commercial interest prevented the Augusta and Savannah line from forming a junction with other railroads entering the city.[37] The Ashley River separated the tracks of the Charleston and Savannah Railroad at Charleston from those of the other two railroads running into the city. At Wilmington the Cape Fear River, as well as gauge differences, blocked through rail movements.[38] Gauge differences separated the Charlotte and South Carolina, from the Wilmington, Charlotte and Rutherfordton, and the North Carolina, at Charlotte. Only inland, and usually away from the navigable waterways, were there genuine junction points such as those at Atlanta, Columbia, Florence, Raleigh and Goldsboro.

The railroad network would have been more extensive and interconnected had a second planned objective—that of completing routes to facilitate intersectional trade—been achieved. For a variety of reasons, economic, topographic and political, North and South Carolina failed in their attempts to construct lines from the Atlantic Coast, through the Appalachians, to Tennessee and the Midwest. By 1860 only Georgia, with more favorable topography for its route, and a more attractive junction across the state line at Chattanooga, was able to gain a transmontane penetration, and a real interregional connection.

## CONCLUSIONS

The main objective of railroad planning in Georgia and the Carolinas before 1860 was to secure control over a particular trade territory and to exclude competition. Investment in line construction was the primary tool employed by ports and interior trading centers for extending their spheres of influence. Political manipulation and thoughts of countervailing construction were the main tools used for preserving territorial integrity and trade monopoly. The result, by 1860, was a railroad network comprised of a series of substantial, but relatively discrete short trunk lines. These systems flowed much like the rivers of the area draining from the Piedmont to the Atlantic coast. They were controlled largely by the capital and the votes of the major ports, and were primarily sustained by the profits of transporting the agricultural produce of areas served by the system to the coast.

The two main results of the dominance of the "short haul" and "territorial" planning concepts were a poor physical integration of neighboring systems, and a neglect of spatial efficiency in network design with respect to long-haul or interregional traffic. There were only four major long distance rail routes operative in Georgia and the Carolinas by 1861. These

were: (1) Charleston to Memphis via Augusta, Atlanta, and Chattanooga (755 miles) opened in 1857; (2) Alexandria and Mobile via Charlottesville, Lynchburg, Bristol, Knoxville, Atlanta, and Montgomery (1,215 miles) opened in 1861; (3) Louisville to Charleston via Nashville, Chattanooga, Atlanta and Augusta (782 miles) opend in 1859, and (4) a seaboard route from the Potomac to Cedar Key, Florida via Richmond, Weldon, Florence, Charleston, Savannah, Waycross and Jacksonville, complete except for a short gap in South Georgia in 1860. The routes were circuitous however, involving repeated transfers from one line to another, and were poorly co-ordinated in terms of scheduling. The route between the national capital and Florida, loosely welded from seven individual port feeder roads, provided perhaps the best example of a sequence of indirect alignments with respect to ultimate destination, occurring anywhere at any time in the absence of topographic obstacles.

The development of the railroads as a transportation mode was an innovation to the southeast in more than the simple technological sense. Railroads were extensive and expensive installations involving much more in the way of benefit and locational analysis than the piecemeal road and canal construction which had gone before. The railroads were in effect the first of the truly large scale "planned" public works programs in the Southeast. The history of their development indicates the widely perceived importance of spatial considerations in facilities planning at their early date. It also shows that the temporality of valid judgements is nothing new in planning experience. The railroad system, developed with a precise logic based on the political and economic circumstances of the 1830s were outmoded and ineffective based on the economic and political demands of the 1860s.

Hindsight, often too harsh a judge, senses some irony in the fact that the disjointed railroad system—which was one of the most taxing strategic and logistical difficulties encountered by the Confederate military machine, and one of the biggest economic burdens of the reconstruction South—was deliberately created before 1860 by some of the commerical interests most supportive of secession. Most of the railroad strategists of the 1830s and 1840s, however, would not have considered themselves to be either long range or regional planners. For the most part they practiced a type of planning characteristic of contemporary retail and industrial development, which attempts to maximize trade and out-distance completion through judicious facility location. Viewed in this way the planning achievements of the early railroad developers of Georgia and the Carolinas can be judged through a more charitable retrospect.

## NOTES

[1] D.D. Wallace, *The History of South Carolina,* American Historical Society, New York, 1934, p. 404.

[2] U.B. Phillips, *A History of Transportation in the Eastern Cotton Belt to 1860,* Columbia University Press, New York, 1908, pp. 133-134.

[3] A.G. Smith, *Economic Readjustment in an Old Cotton State; South Carolina, 1820-1860,* University of South Carolina Press, Columbia, S.C. 1958, pp. 158-159.

[4] Wallace, *op cit.,* pp. 405-407.

[5] Smith, *op. cit.,* pp. 160-161.

[6] S.J. Folmesbee, *Sectionalism and Internal Improvements in Tennessee, 1796-1845,* East Tennessee Historical Society, Knoxville, Tenn., 1939, pp. 117-167.

[7] W.W. Way, *The Clinchfield Railroad,* University of North Carolina Press, Chapel Hill, N.C., 1931, pp. 33-46.

[8] P.J. McGuire, "Athens and the Railroads, The Georgia and Northeastern," *Georgia Historical Quarterly,* Vol. 18, 1934, pp. 1-26.

[9] B.C. Yates, "Macon, Georgia: Inland Trading Center, 1826-1836", *Georgia Historical Quarterly,* Vol. 45, 1961, pp. 1-21.

[10] Phillips, *op. cit.,* p. 253.

[11] M. Dixon, "Building the Central Railroad of Georgia," *Georgia Historical Quarterly,* Vol. 45, 1961, pp. 1-21.

[12] Phillips, *op cit.,* pp. 264-266.

[13] W. Harden, *A History of Savannah and South Georgia,* Vol. 1, n.p. Chicago and New York, 1913, pp. 325-326.

[14] Phillips, *op cit.,* 287-291.

[15] T.J. Wertenbaker, *Norfolk, Historic Southern Port,* Duke University Press, Durham, N.C., 1931, pp. 102-203.

[16] C.W. Turner, "The Early Railroad Movement in Virginia," *Virginia Magazine of History and Biography,* Vol. 55, 1947, pp. 350-371.

[17] C.C. Weaver, *Internal Improvements in North Carolina Previous to 1860,* John Hopkins University Press, Baltimore, 1903, pp. 77-84.

[18] C.K. Brown, *A State Movement in Railroad Development,* University of North Carolina Press, Chapel Hill, N.C., 1962, pp. 104-105.

[19] J. Grodinsky, *Transcontinental Railway Strategy, 1869-1893,* University of Pennsylvania Press, Philadelphia, 1962, pp. 104-105.

[20] Brown, *op cit.,* pp. 63-94.

[21] *Ibid,* pp. 95-147.

[22] Phillips, *op. cit.,* pp. 352-354.

[23] *Ibid,* pp. 336-349.

[24] *Ibid,* pp. 354-364.

[25] M.S. Heath, "Public Railroad Construction and the Development of Private Enterprises in the South before 1861," *Journal of Economic History,* 19, 1950, pp. 40-58, and M.S. Heath, *Constructive Liberalism: The Role of the State in the Economic Development of Georgia to 1860.* Harvard University Press, Cambridge, Mass., 1954.

[26] F.A. Cleveland and F.W. Powell, *Railroad Promotion and Crystallization in the United States,* Longmans, Green, New York, 1909, p. 214.

[27] E.M. Coulter, *A Short History of Georgia,* University of North Carolina Press, Chapel Hill, N.C., 1933, pp. 253-256.

[28] R.S. Cotterhill, "Southern Railroads and Western Trade 1840-1850," *Mississippi Valley Historical Review,* Vol. 10, 1917, pp. 427-441, and "Southern Railroads, 1850-1860, *Mississippi Valley Historical Review,* Vol. 10, 1924, pp. 398-405.

[29] W.G. Cooper, *The Story of Georgia,* American Historical Society, New York, 1938, Vol. III, p. 340.

[30] W. Lumpkin, *The Removal of the Cherokee Indians from Georgia,* Dodd, Mead and Company, New York, 1907, Vol. II, p. 294.

[31] Phillips, *op. cit.,* pp. 359-361.

[32] C.K. Brown, "A History of the Piedmont Railroad Company," *North Carolina Historical Review,* Vol. 3, 1926, pp. 198-222.

[33] C.K. Brown, *At State Movement in Railroad Development,* op. cit., pp. 202-211.

[34] C.W. Ramsdell, "The Confederate Government and the Railroads," *American Historical Review,* Vol. 22, 1917, pp. 749-810.

[35] Harden, *op. cit.,* p. 489.

[36] Phillips, *op cit.,* p. 294.

[37] C.C. Jones and S. Dutcher, *Memorial History of Augusta, Georgia,* D. Mason Co., New York, 1890, p. 504.

[38] B.R. Taylor and I. Neu, *The American Railroad Network, 1861-1890,* Harvard University Press, Cambridge, Mass., 1956, pp. 46-47.

# FUNCTIONAL AND SPATIAL PATTERNS OF GEORGIA SHORT LINE RAILROADS, 1915-1978

By W. Theodore Mealor, Jr.

The annals of American history are replete with illustrations of communities attempting to build or attract railroads. Constructed at different times and with different gauges many of these railroads initally operated as short lines, reflecting the economic development of the areas they served. Most of these lines have disappeared through mergers into larger systems, as other modes of transportation usurped their functions, or as the need for their services vanished.

In his article "Freight Traffic Functions of Anglo-American Railroads," William H. Wallace makes the point that "freight traffic characteristics of railroads are to a considerable degree products of the regions served and the patterns of rail lines."[1] Assuming that Wallace's statement is correct, then freight traffic functions and distributional patterns of railroads should change as the economic base of the regions they serve change. Wallace classified Class 1 American and Canadian railroads according to freight traffic statistics averaged for a ten year period.[2] Although he alluded to functional change, Wallace did not pursue the topic. Also, because most Class 1 railroads have considerable mileage of track and serve large areas, it was difficult for him to do more than list the percentage distribution of freight traffic by commodity groups.

Based on the methodology developed by Wallace, this paper seeks to determine the relationships between spatial patterns and functional characteristics and the viability of Georgia short line railroads. The specific objectives of the paper are (1) to describe and compare the spatial patterns and characteristics of short line railroads and (2) to compare their functional characteristics for the study years 1915, 1940, 1965, and 1978. The results of the study should provide insights into the viable nature of the short lines and serve as a basis for relating areal economic data with the spatial and functional characteristics of the short lines.

## CRITERIA

There is no standard definition of a short line railroad. One definition describes a short line as "a common carrier railroad that is listed in either the *Official Guide* or the *Pocket List of Railroad Officials,* or both, which has a route mileage of less than 400."[3] The American Association of Short Line Railroads, however, has members whose main lines exceed 2,000 miles. Other criteria that could be used to define a short line railroad include the number of locomotives operated and rolling stock owned.

For the purpose of this study the following criteria were used to define a short line: (1) a maximum of 150 miles of main line track; (2) function that consists of inter-city service; and (3) operation of rolling stock under its own corporate name. These criteria eliminate longer haul railroads, terminal switching companies, and those railroads that own nothing but right-of-way and do not operate rolling stock. It does not exclude those railroads that are wholly owned or controlled by another company as long as the subsidiary operates rolling stock and locomotives under its own name.

## CLASSIFICATION OF SHORT LINES

Although passenger traffic may have been of significance at one time, the function of Georgia short line railroads traditionally has been the transporation of freight. Using the annual Interstate Commerce Commission reports of the railroads on file with the Georgia Public Service Commission, each short line has been classified according to the commodities it hauled and by its function as an originator or receiver of traffic for each of the study years. Unfortunately, classification of some railroads was impossible due to incomplete reporting and, since 1963, by a change in reporting form.

There are five possible commodity classifications based upon the Commission's annual reports. They are: (1) agricultural commodities; (2) animals and animal products; (3) products of mines; (4) products of forests; and (5) manufactured goods. Two other classifications, (6) balanced and (7) combination are possible based upon admixtures of the five principle commodities.

A short line railroad was classified as one through five of the above types if the tonnage hauled of a specific commodity amounted to 36 percent or more of the total tonnage carried and there was at least 11 percent difference between the leading commodity and the next most important commodity. A combination classification was achieved when the leading commodity represented 35 to 50 percent of the total tonnage and the second commodity amounted to more than 25 percent of the total and there was less than 10 percent disparity between the two. The third and fourth commodity groups combined must have been equal to or less than 25 percent of the total tonnage. The classification of balanced, determined in three ways, indicates that at least three commodity groups are significant in the admixture of freight carried.[4]

Functional classification of a railroad was determined by computing the percentage of commodity tonnage that originated on line or that was received from another rail connection. More than 50 percent of the total tonnage was necessary to classify a railroad as an originator or as a receiver. A railroad that was classified as an originating line was subtyped as (1) an "internal line" when the largest proportion (at least 30 percent) of freight was both originated and terminated on line or as (2)

a "generating line" when more than 30 percent of its tonnage was originated on line and delivered to another railroad for further shipment. A receiving line was sub-typed as (1) a "terminating line" when more than 30 percent of the goods it received were delivered on line, or as (2) a "bridge line" when more than 30 percent of the received goods were delivered to another railroad for continued shipment.[5] Unfortunately, information on function other than originating and receiving was not readily available for Georgia short lines.

## SHORT LINE FUNCTIONS: 1915

The 47 short lines operational in Georgia in 1915 had a total of 1,900 miles of main line track (approximately one-third of all main line mileage in the state). Analysis of the distribution of these railroads indicates several areas of concentration (Figure 1). The most outstanding pattern was along the northeast-southwest route from Augusta to Valdosta. With interchanges in Dublin, Hawkinsville, Bridgeboro, Rockledge, Wadley, and Glennville, the 15 short lines of this network provided service from Albany, Valdosta, and Bainbridge to Macon, Augusta, and Brunswick. Another concentration, consisting of four lines, paralleled the Savannah River. Other focal points were LaGrange, Gainesville, and Waycross. No short line was isolated; either through direct connections or via other short line routes, each company in 1915 and in subsequent years had access to main line railroads.

Commodity information is available for 32 short lines in 1915 (Table 1). Of these, nine (28 percent) were engaged primarily in the transportation of forest products. Only one of these lines, the Gainesville and Northwestern, was located in north Georgia. The six railroads (18 percent) whose commodity function classified them as "manufacture" lines were located in central and north Georgia. All three lines (nine percent) classified as carriers of agricultural goods were located in north Georgia. There were eight short lines (25 percent) whose commodity functions classified them as balanced and three-quarters of these were in south Georgia. Five railroads (14 percent), all in south Georgia, were functionally classified as combination lines. Analysis of the admixtures of commodities carried by the 13 balanced and combination short lines shows that the two leading classifications were manufactured products (11 lines), agricultural products (eight lines), minerals (five lines), and forest products (two lines). Only one short line, the Gainesville Midland, was classified as a carrier of minerals.

Information on function is available for only 13 of the short lines in 1915 (Table 2). Of these, seven were classified as originating lines and six as receiving lines. Although four of the receiving short lines were classified as balanced or combination, manufactured goods were dominant on all lines except the Macon and Birmingham (agricultural-mineral). Only one of the originating short lines (the Tennessee, Alabama, and

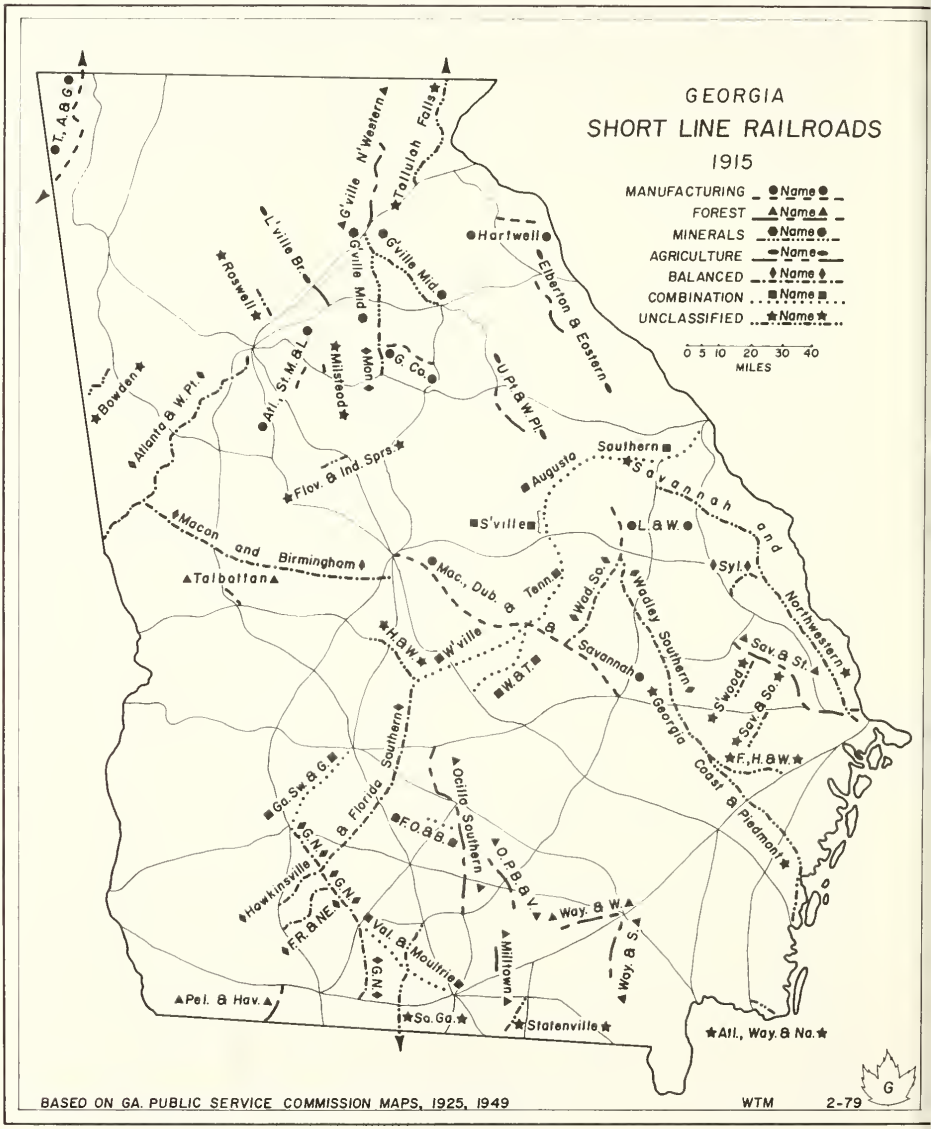

GEORGIA
SHORT LINE RAILROADS
1915
MANUFACTURING
FOREST
MINERALS
AGRICULTURE
BALANCED
COMBINATION
UNCLASSIFIED
0 5 10 20 30 40
MILES
T. A. & G.
A'ville N'Western
Tallulah Falls
G'ville Mid.
L'ville Br.
Roswell
Hartwell
Elberton & Eastern
Bowden
Atlanta & W. Pt.
Atl., St. M. & L.
Millstead
Mon.
G. Co.
U. Pt. & W. Pt.
Flov. & Ind. Sprs.
Augusta
Southern
Savannah and Northwestern
S'ville
L. & W.
Macon and Birmingham
Talbotton
Mac., Dub. & Tenn.
Wad. So.
Wadley Southern
Syl.
H. & W.
W'ville
W. & T.
Savannah & Georgia
Sav. & St.
S'wood
Sav. & So.
F., H. & W.
Ga. S. & G.
Florida Southern
F. O. & S.
Ocilla Southern
O. P. B. & V.
Coast & Piedmont
G. N.
Hawkinsville
F. R. & N. E.
Way. & W.
Val. & Moultrie
Milltown
Way. & S.
Pel. & Hav.
So. Ga.
Statenville
Atl., Way. & No.
BASED ON GA. PUBLIC SERVICE COMMISSION MAPS, 1925, 1949
WTM
2-79
G

Figure 1.

Georgia, a carrier of manufactured goods) was not a dominant carrier of raw materials. All other originating short lines were transporters of forest products or were classified as balanced or combination with agricultural goods being the most significant commodity carried. Interestingly, one-half of the originating agricultural and forest lines originated more traffic in manufactured goods than they received. On the other hand, only three of the receiving lines generated more agricultural cargo than they received.

Table 1

SHORT LINE COMMODITY CLASSIFICATION, 1915

| Manufacture | Forest | Balanced |
|---|---|---|
| Greene County (G. Co) | Gainesville and Northwestern (G'ville & N'western) | Atlanta and West Point (Atlanta & W. Pt.) |
| Hartwell | Milltown | Flint River and Northeastern (F.R. & NE.) |
| Louisville and Wadley (L&W) | Ocilla, Pinebloom, and Valdosta (O.P.B.&V.) | Georgia Northern (G.N.) |
| Macon, Dublin and Savannah (Mac., Dub., & Sav.) | Ocilla Southern | Hawkinsville and Florida Southern |
| Milstead | Pelham and Havanna (Pel. & Hav.) | |
| Tennessee, Alabama and Georgia (T, A&G) | Savannah and Statesboro (Sav. & St.) | Macon and Birmingham |
| | Talbotton | |
| | Waycross and Southern (Way. & S.) | Monroe (Mon.) |
| | Waycross and Western (Way. & W.) | Sylvania (Syl.) |
| | | Wadley Southern |
| **Mineral** | **Agriculture** | **Combination** |
| Gainesville Midland (G'ville Mid.) | Elberton and Eastern | Augusta Southern |
| | Lawrenceville Branch (L'ville Br.) | Fitzgerald, Ocilla, and Broxton (F.O.&B.) |
| | Union Point and White Plains (U. Pt. & W. Pl.) | Georgia Southwestern and Gulf (Ga. SW.&G.) |
| | | Valdosta, Moultrie, and Western (Val. & Moultrie) |
| | | Wrightsville and Tennille (W.&T.: W'ville & Tenn.) |

*Source:* Georgia Public Service Commission.

## SHORT LINE FUNCTIONS: 1940

In 1940 there were 24 short lines operating over slightly more than 1,000 miles of main line track (Figure 2). The decrease in number of operational units resulted in a significant change in the areal pattern of the short lines. The network connecting Augusta with Macon, Valdosta, and Brunswick was broken with the demise of the Augusta Southern, the Valdosta, Moultrie and Western, and the reorganization of the Georgia Coast and Piedmont, the Wadley Southern, and the Hawkinsville and

Florida Southern. Although one line (the Savannah and Atlanta) still paralleled the Savannah River, the pattern was not as dense as it had been in 1915. Although a node still existed at Gainesville, the pattern in north Georgia showed little spatial association of one short line with another. Similar to the 1915 pattern, the majority of the 1940 north Georgia short lines were tentacles, providing rail connections between a central place and a main line railroad. The short lines on the Coastal Plain tended to be areally associated with each other and to be integrated in the statewide rail net formed by the Atlantic Coast Line, Central of Georgia, Seaboard Airline, and Southern railroads. With the exception of the Talbotton, no short line duplicated a direct route of a major railroad.

Table 2

FUNCTIONAL CLASSIFICATION OF SHORT LINES, 1915

| Internal | Originating | Receiving | Bridge | Terminating |
|---|---|---|---|---|
| — | Augusta Southern | Atlanta and West Point | — | — |
| | Hawkinsville and Florida Southern | Gainesville Midland | | |
| | Ocilla Southern | Georgia Northern | | |
| | Savannah and Statesboro | Georgia Southwestern and Gulf | | |
| | Tennessee, Alabama, and Georgia | Macon and Birmingham | | |
| | Wadley Southern | Macon, Dublin, and Savannah | | |
| | Wrightsville and Tennille | | | |

*Source:* Georgia Public Service Commission.

Twelve of the 23 short lines for which 1940 data are available were engaged predominantly in transporting manufactured goods (Table 3). Of these lines, five were in north Georgia and seven in south Georgia. Only four (17 percent) of the short lines, all in south Georgia, were classified as carriers of forest products. Three lines (13 percent) were classified as balanced, and three as combination. Manufactured goods coupled with products of forests or agriculture were significant in the admixtures of the four balanced and combination lines in south Georgia while north Georgia lines were dominated by combinations of minerals and manufactured goods. Only one short line was a "mineral" railroad and no line was classifed as "agricultural."

The overwhelming proportion (78 percent) of Georgia short line railroads functioned as receivers of freight in 1940 (Table 4). Nine of the 18 receiver railroads were sub-classified, five as terminating lines and four as bridge lines. As would be expected, two of the terminating lines were tentacles, connecting a small town with a Class I railroad. The other three terminal routes and all of the bridge lines connected two or more

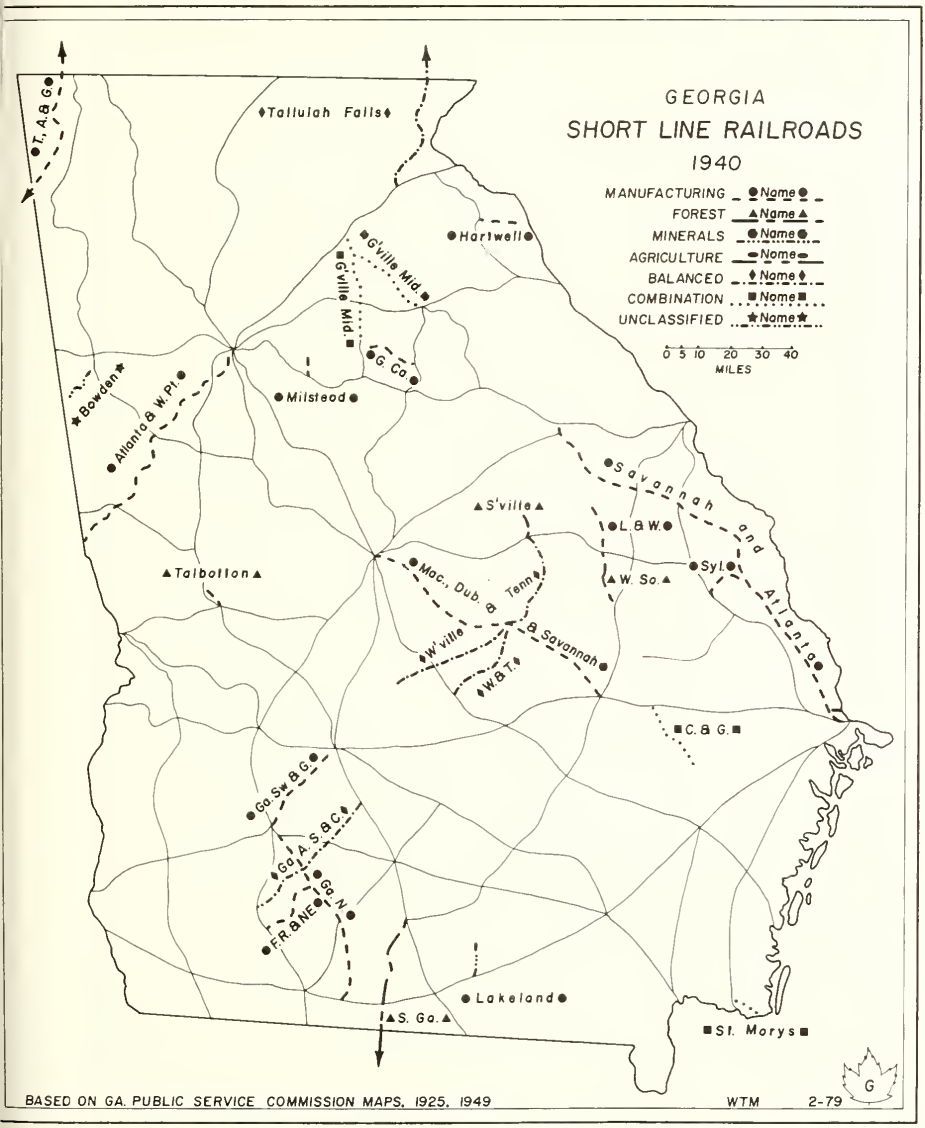

GEORGIA
SHORT LINE RAILROADS
1940
MANUFACTURING
FOREST
MINERALS
AGRICULTURE
BALANCED
COMBINATION
UNCLASSIFIED
0 5 10 20 30 40
MILES
T. A. & G.
Tallulah Falls
Hartwell
G'ville Mid.
G. Co.
Milstead
Bowden
Atlanta & W. Pt.
Talbotton
S'ville
Mac., Dub. & Tenn.
W'ville & Savannah
W. & T.
L. & W.
W. So.
Savannah and Atlantic
Syl.
C. & G.
Ga. Sw. & G.
Ga. A. S. & C.
Ga. N.
FR. & NE.
S. Ga.
Lakeland
St. Marys
BASED ON GA. PUBLIC SERVICE COMMISSION MAPS, 1925, 1949
WTM
2-79
G

Figure 2.

Table 3

SHORT LINE COMMODITY CLASSSIFICATION, 1940

| Manufacture | Forest | Balanced |
|---|---|---|
| Atlanta and West Point | Sandersville | Georgia, Ashburn, Sylvester and Camilla |
| Flint River and Northeastern | South Georgia | Tallulah Falls |
| Georgia Northern | Talbotton | Wrightsville and Tennille |
| Georgia Southwestern and Gulf | Wadley Southern | |
| Greene County | | |
| Hartwell | | |
| Louisville and Wadley | | |
| Macon, Dublin, and Savannah | | |
| Milstead | | |
| Savannah and Atlanta | | |
| Sylvania | | |
| Tennessee, Alabama, and Georgia | | |
| **Mineral** | **Agriculture** | **Combination** |
| Lakeland | — | Collins and Glennville |
| | | Gainesville Midland |
| | | St. Marys |

*Source:* Georgia Public Service Commission.

places that were served by Class 1 railroads.

Carriers of manufactured goods tended to function as receiving lines. Only two "manufacture" short lines were originating companies (the Hartwell, a tentacle route, and the Savannah and Atlanta, serving the port city). Of the four remaining receiving lines, three were sub-typed as bridge lines and one as a terminating line. Likewise, the six short lines classified as balanced or combination were receiving lines and three of these were sub-typed as terminating routes. Again, manufactured goods were significant among the commodities carried by these railroads. The one "mineral" short line (the Lakeland) was a tentacle and functioned as a terminating route. Three of the four forest products related lines were originators of traffic while the fourth was classified as a bridge line.

## SHORT LINE FUNCTIONS: 1965 and 1978

By 1965 only 16 short lines, operating 750 miles of main line track, remained in Georgia (Figure 3). Only remnants of former patterns remained; the spatial association of the three former Pidcock family owned lines (the Georgia Northern, the Georgia, Ashburn, Sylvester and Camilla, and the Albany and Northern) in southwest Georgia being the best example. In only one other place (Tennille) was there a junction between two short lines. The remaining eleven lines were areally disassociated from each other. Four of the short lines were tentacles as was the branch

Table 4

FUNCTIONAL CLASSIFICATION OF SHORT LINES, 1940

| Internal | Originating | Receiving | Bridge |
|---|---|---|---|
| — | Hartwell | Collins and Glennville | Atlanta and West Point |
| | Sandersville | Flint River and Northeastern | Georgia Northern |
| | Savannah and Atlanta | Georgia, Ashburn, Sylvester and Camilla | Macon, Dublin and Savannah |
| | Talbotton | Georgia Southwestern and Gulf | South Georgia |
| | Wadley Southern | Greene County | |
| | | Louisville and Wadley | |
| | | Milstead | |
| | | St. Marys | |
| | | Sylvania | |
| | | **Terminating** | |
| | | Gainesville Midland | |
| | | Lakeland | |
| | | Tallulah Falls | |
| | | Tennessee, Alabama and Georgia | |
| | | Wrightsville and Tennille | |

*Source:* Georgia Public Service Commission.

of another. The remaining lines connected cities served by Class I railroads.

Information is not available on commodity tonnage for 1965. However, data are available from 1963 for nine of the short lines (Table 5). Surprisingly, the number of forest related railroads increased from four in 1940 to five in 1963, all in south Georgia. Three of the "forest" railroads (the Chattahoochee Industrial, the St. Marys, and the Valdosta Southern) were owned by timber related industries. Two, the Chattahoochee Industrial and the Valdosta Southern, were founded after 1950. Three lines were carriers of manufactured goods and one line was classified as a carrier of minerals.

Data on short line functions are even more scarce than information on commodities. No functional patterns or associations can be discerned for the six lines for which information is available (Table 6).

Eight short lines were operational in Georgia in 1978 (Table 7). With the merger of the former Pidcock lines into the Southern system and the Wrightsville and Tennille into the Central of Georgia, all remaining vestiges of the 1915 Augusta to Valdosta network of short lines were dissipated. Five of the remaining short lines were tentacles while three provided connections between two or more Class I rail lines (Figure 4). Although commodity and function data were not available in the annual reports, ownership characteristics were. Three of the lines were owned by companies involved in forest related industries, indicating that the commodities they carried were probably forest related. One other line, the

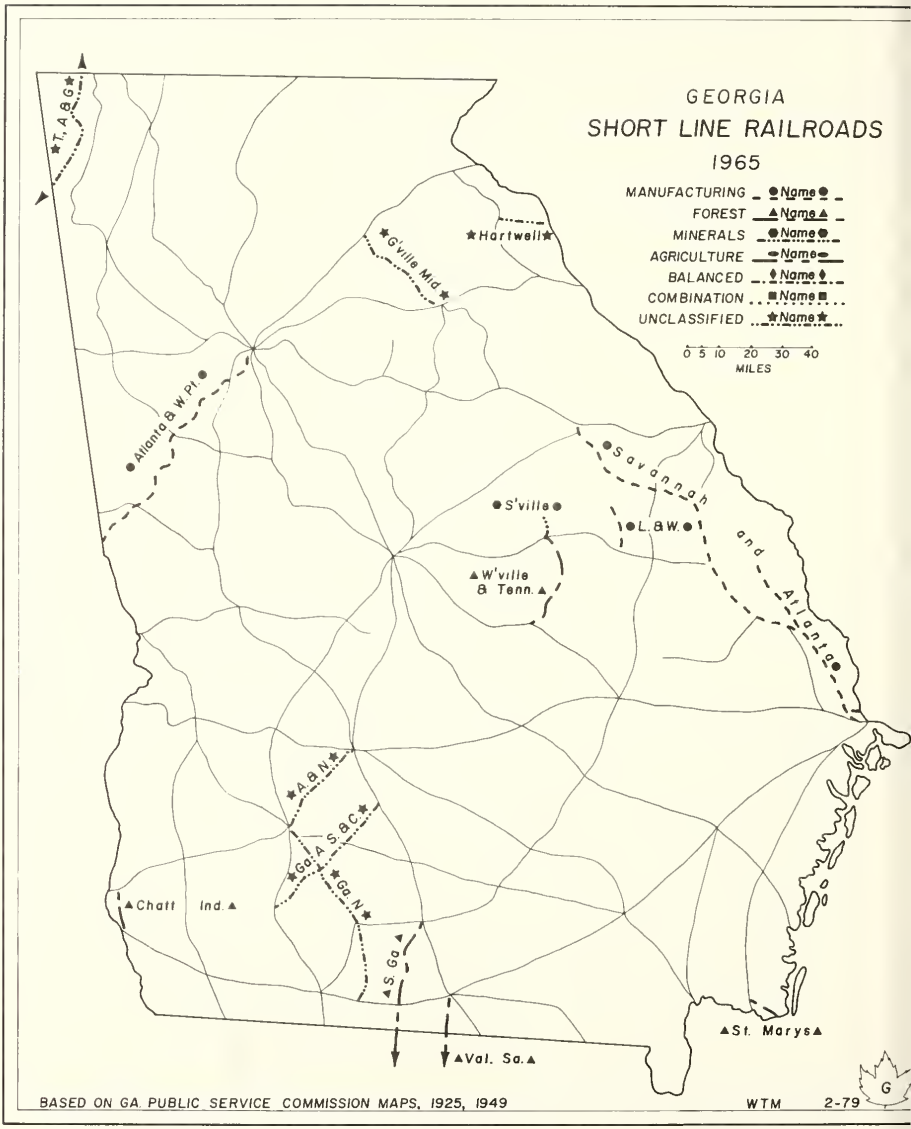

GEORGIA
SHORT LINE RAILROADS
1965
MANUFACTURING Name
FOREST Name
MINERALS Name
AGRICULTURE Name
BALANCED Name
COMBINATION Name
UNCLASSIFIED Name
0 5 10 20 30 40
MILES
T. A. & G.
G'ville Mid.
Hartwell
Atlanta & W. Pt.
S'ville
Savannah and Atlanta
L. & W.
W'ville & Tenn.
A. & N.
Ga. A. & S. C.
Ga. N.
S. Ga.
Chatt Ind.
Val. So.
St. Marys
BASED ON GA. PUBLIC SERVICE COMMISSION MAPS, 1925, 1949
WTM 2-79
G

Figure 3.

Sandersville, owned 345 hopper cars and served a kaolin mine north of Sandersville. More than likely this line was still classified as "mineral" in 1978.

## DEFUNCT AND MERGED SHORT LINES

Of the 49 short lines included in this study, 41 no longer operate as inter-city carriers under their own names (Figure 5). Ten of these lines are operational as part of Class I rail systems while one operates as a switching company. Several of the remaining 30 lines were bought by larger railroads prior to their routes being abandoned.

Slightly more than one-third (15) of the short lines in existence in 1915 were out of business by 1930 and all but four of these were in south

Table 5

SHORT LINE COMMODITY CLASSIFICATION, 1965

| Manufacture | Forest | Balanced | Mineral | Agriculture | Combination |
|---|---|---|---|---|---|
| Atlanta and West Point | Chattahoochee Industrial | – | Sandersville | – | – |
| Louisville and Wadley | St. Marys | | | | |
| Savannah and Atlanta | South Georgia | | | | |
| | Valdosta Southern | | | | |
| | Wrightsville and Tennille | | | | |

*Source:* Georgia Public Service Commission.

Georgia. Ten of these lines were tentacle routes that in most cases did not serve communities of any size, a paradox in light of some of the corporate names. For instance, the Ocilla, Pinebloom and Valdosta, owned by the Gray Lumber Company of Willacoochee, served neither Ocilla nor Valdosta, but did connect Lax, Pinebloom, and Shaws Still. One terminal of the Savannah and Southern was at Louin while the other terminal was located "two miles past Willie."[7]

Table 6

FUNCTIONAL CLASSIFICATION OF SHORT LINES, 1965

| Internal | Originating | Receiving | Bridge | Terminating |
|---|---|---|---|---|
| – | Sandersville | Louisville and Wadley | Atlanta and West Point | – |
| | Savannah and Atlanta | South Georgia | | |
| | Wrightsville and Tennille | | | |

*Source:* Georgia Public Service Commission.

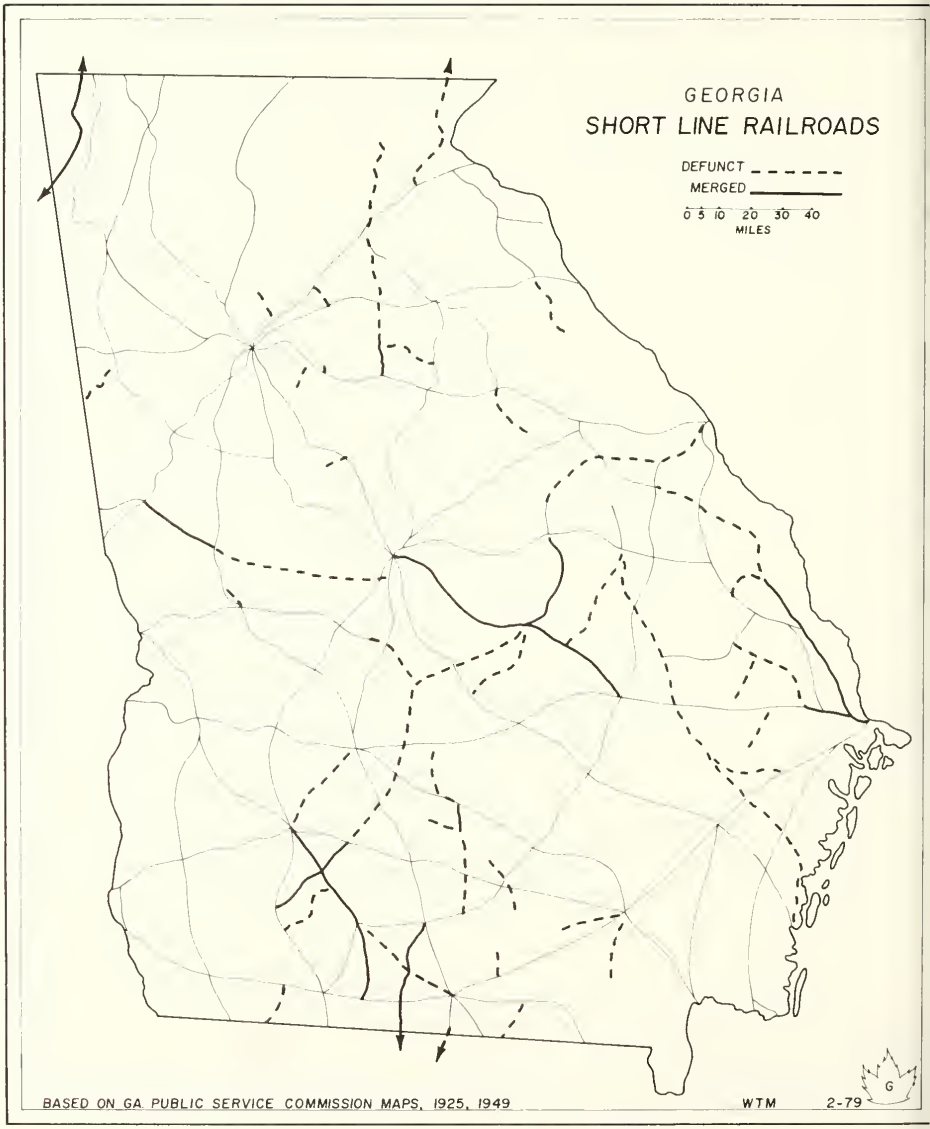

GEORGIA
SHORT LINE RAILROADS
DEFUNCT
MERGED
0 5 10 20 30 40
MILES
BASED ON GA PUBLIC SERVICE COMMISSION MAPS, 1925, 1949
WTM
2-79
G

Figure 4.

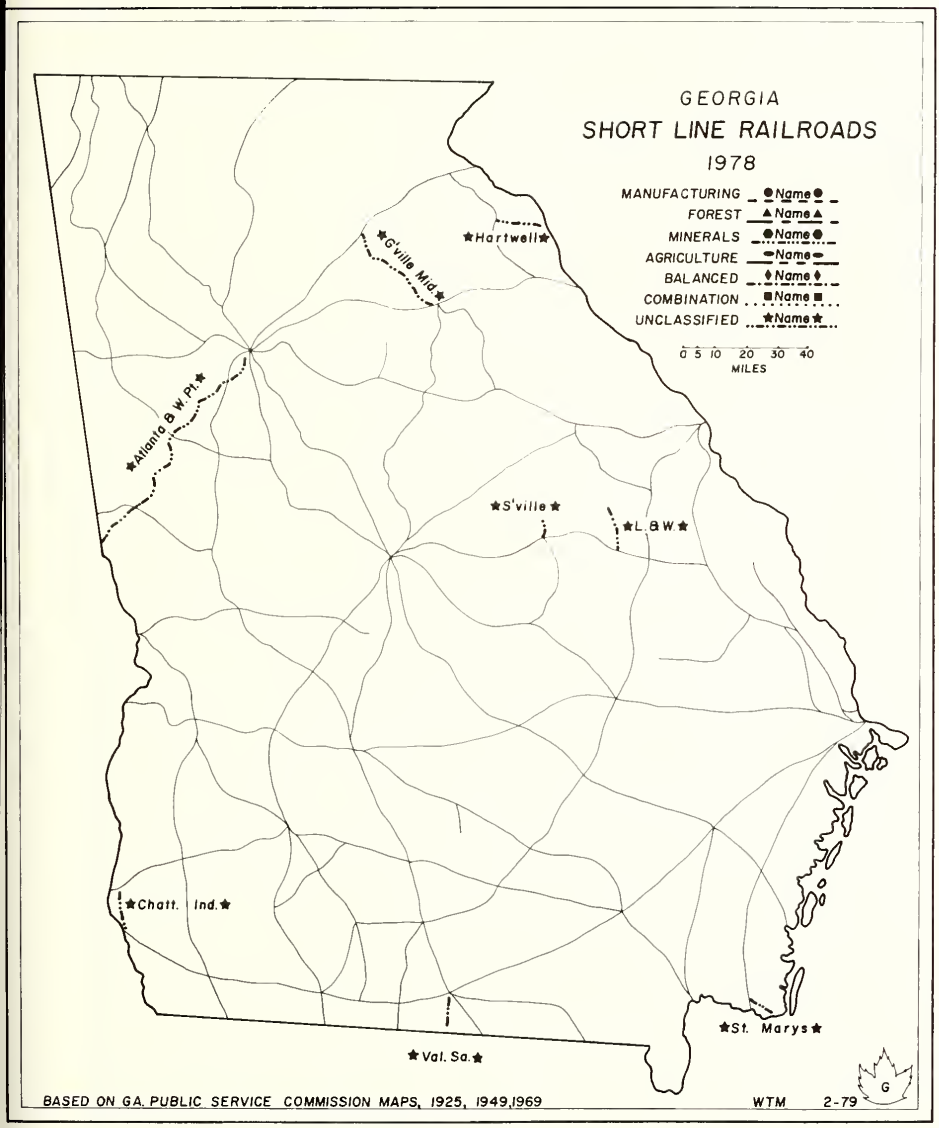

GEORGIA
SHORT LINE RAILROADS
1978
MANUFACTURING
FOREST
MINERALS
AGRICULTURE
BALANCED
COMBINATION
UNCLASSIFIED
0 5 10 20 30 40
MILES
Hartwell
G'ville Mid.
Atlanta B.W.Pt.
S'ville
L. B.W.
Chatt. Ind.
Val. Sa.
St. Marys
BASED ON GA. PUBLIC SERVICE COMMISSION MAPS, 1925, 1949,1969
WTM 2-79
G

Figure 5.

The depression did not wreak havoc upon Georgia short lines. Only six lines, three in south Georgia, failed between 1930 and 1941. Of these, four were tentacles. However, several companies, such as the Wadley Southern, abandoned routes that were integral to the total Georgia rail network. Since 1942 nine short lines, six in south Georgia, have ceased operations. Six of these were part of the state-wide network while one other essentially replicated the route of a Class I railroad. Ten of the 15 short lines that went out of business between 1930 and 1978 had at least one county seat as a terminal and three of the others served at least one community with a population of more than 2,500.

Table 7

SHORT LINES OPERATIONAL IN 1978

| Railroad | Ownership or Affiliation | Railroad | Ownership or Affiliation |
|---|---|---|---|
| Atlanta and West Point | (Seaboard Coast Line) | Louisville and Wadley | (Central of Georgia) |
| Chattahoochee Industrial | (Great Northern Paper Co.) | St. Marys | (Gilman Paper Co.) |
| Gainesville Midland | (Seaboard Coast Line) | Sandersville | (independent) |
| Hartwell | (independent) | Valdosta Southern | (Owens-Illinois Co.) |

*Source:* Georgia Public Service Commission.

Data available on commodities carried by 21 of the 30 defunct short lines during their last year of operation reveal both areal and commodity associations (Table 8). Twelve of the 21 companies were primarily carriers of forest products and all but one of these were in south Georgia. Two other south Georgia short lines carried forest commodities in combination with manufactured goods. Although information is sketchy, apparently many forest oriented railroads were originators of traffic. Eight of the lines were tentacles, joining such places as Cogdell with Waycross and Haylow with Statenville. The corporate life of most of these lines was short. Only three of the companies were operational prior to 1900 and nine were out of business by 1930. Interestingly, two of the oldest companies, the Talbotton and the Wadley Southern were among the last to cease operations.

The three lines classified as carriers of manufactured goods ceased operations between 1930 and 1941. Although each was a receiver of goods, only one was part of the state-wide rail network. Both of the tentacle routes connected cities of some regional importance (Savannah with Statesboro and Gainesville with Helen. No significant patterns or associations can be concluded concerning the routes or commodity functions of the other defunct short lines.

The types of commodities carried by a short line and its ability to accommodate or adjust to changes in local needs apparently is related

Table 8

SHORT LINE COMMODITY CLASSIFICATION, LAST YEAR OF OPERATION

| Manufacture | Forest | Balanced |
|---|---|---|
| Gainesville and Northwestern (1933) | Fitzgerald, Ocilla, and Broxton (1918) | Augusta Southern (1920) |
| Savannah and Statesboro (1933) | Ocilla, Pinebloom and Valdosta (1918) | |
| Greene County (1941) | Valdosta, Moultrie and Western (1919) | |
| | Pelham and Havanna (1922) | |
| | Savannah and Southern (1922) | |
| | Waycross and Western (1925) | |
| | Statenville (1927) | |
| | Union Point and White Plains (1927) | |
| | Waycross and Southern (1929) | |
| | Flint River and Northeastern (1946) | |
| | Talbotton (1956) | |
| | Wadley Southern (1964) | |

| Mineral | Agriculture | Combination | Unclassified |
|---|---|---|---|
| Elberton and Eastern (1933) | Milstead (1961) | Collins and Glennville (1941) | Flemington, Hinesville and Western (1915) |
| | | Sylvania (1954) | Hawkinsville and Western (1915) |
| | | | Flovilla and Indian Springs (1916) |
| | | | Lawrenceville Branch (1919) |
| | | | Roswell (1921) |
| | | | Shearwood (1937) |
| | | | Lakeland (1957) |
| | | | Tallulah Falls (1961) |
| | | | Bowdon (1963) |
| | | | Atlanta, Stone Mountain and Lithonia (operated as switching company) |

*Source:* Georgia Public Service Commission.

to its viability as an operational company. Data on 16 of the defunct short lines show that the dominant types of commodities carried by nine of them during their last year of operation were the same as they carried during the selected study years. All nine of these lines functioned as originators of traffic, predominantly forest products, during the selected study years and, with the exception of the Talbotton, all were out of business by 1930.

The types of commodities carried by the remaining seven short lines were not uniform for the selected study years. Most of these lines carried either agricultural or forest products in 1915 (only the Milstead, owned by a textile mill, was classified as a "manufacture" line). During subsequent years manufactured goods became the dominant commodity carried on all but two routes. The majority of this type of short line initially functioned as originators of traffic; however, each functioned as a receiver of goods during at least one of the study years.

Short lines that were merged into the systems of Class I railroads typically were integral to the state-wide rail network at the time of merger (Table 9). In several cases only a portion of the short lines' routes were incorporated into the larger system. Also, many of the short lines had been controlled by a Class I railroad prior to being operationally merged with the parent system. All but two of the merged short lines were established prior to 1900 and, with the exception of the Monroe, each at one time operated in excess of 50 miles of main line track.

Table 9

SHORT LINES MERGED WITH CLASS I RAILROADS

| Short Line | Class I Company | Date of Merger |
|---|---|---|
| Georgia, Ashburn, Sylvester and Camilla | Southern (through prior merger with the Georgia Northern | Dec. 31, 1971 |
| Georgia Northern | Southern | Dec. 31, 1971 |
| Macon and Birmingham | Seaboard | 1920 |
| Macon, Dublin and Savannah | Seaboard | 1956 |
| Monroe | Georgia Railroad | 1916 |
| Ocilla Southern | Seaboard | 1923 |
| Savannah and Atlanta | Central of Georgia[1] | June 1, 1971 |
| South Georgia | Southern (through prior merger with the Live Oak, Perry and Gulf | Dec. 31, 1971 |
| Tennessee, Alabama and Georgia | Southern | Jan. 1, 1971 |
| Wrightsville and Tennille | Central of Georgia | June 1, 1971 |

[1]The Central of Georgia is controlled by the Southern Railroad.

*Source:* Georgia Public Service Commission.

"Manufacture" short lines were the most prominent among the types merged with Class I railroads. During the last year of operation prior to merger all but three of the short lines for which data are available were carriers of manufactured goods. Unlike the defunct short lines, the overwhelming majority of these companies (90 percent) were consistent

from study year to study year in the types and admixtures of commodities that they carried. Only one, the Wrightsville and Tennille, showed significant variation from year to year. This company and the Tennessee, Alabama and Georgia were the only two short lines not to function consistently as either originators or receivers of goods during the selected study years. The majority of merged short lines functioned as receivers of goods and at least two were sub-typed as bridge lines. All four north Georgia short lines were receivers during their last year of operation as were two of the south Georgia companies.

## CONCLUSIONS

The 1978 map of Georgia's state-wide transportation network exhibits gaps that previously contained rail lines. The loss of more than 1,200 miles of main line tracks in the last 60 years is directly attributable to the demise of short line railroads and is associated with both the spatial patterns and functional characteristics of those railroads.

Short lines having tentacle routes were much more susceptible to failure than were those lines integrated in the state-wide network. Of the 23 tentacle railroads operative in 1915 only three survive and none of the others were incorporated into a larger system. Two additional tentacle routes exist today as a result of right-of-way abandonment (the Valdosta Southern) and failure of a connecting short line (the Augusta Southern with the Sandersville). Of the five tentacle lines in 1978, two were owned by timber related companies and one was functionally associated with kaolin mining.

Twenty-six short lines have been part of the state-wide rail net since 1915. Of these, only three remain (five of the two tentacle routes that were once a part of the net are included). However, ten of the short lines in the state-wide network were incorporated into larger systems. The survival rate, therefore, was 50 percent for lines integral in the network and 13 percent for companies with tentacle routes.

Survival of short lines as independent operations or as parts of larger railroad systems is in part related to the types of commodities they carried. Short lines whose cargoes traditionally have been dominated by manufactured goods survived longer than those whose freight was predominantly forest or agricultural products. Seemingly more important to the survival of a short line than change in the commodity classification has been the consistency through time of the company to provide transportation for a particular commodity type or admixture of commodities. With the exception of several short lines owned by forest related industries, those short lines operational today or that have merged with larger systems typically were dependent on the movement of manufactured goods during each of the study years. Concomitantly, the consistency with which a

short line functioned as an originator or receiver of goods has been more important to its survival than year to year change in function.

Tentacle short lines that functioned as originators of forest products were the least viable of all the short lines. Certainly many of these were special purpose lines that reflected the economy of the areas along their routes. A listing of the places they served reveals that most were "saw mill" towns that do not exist today. As the timber was cut and as truck transportation became more feasible these lines ceased to operate. Because of their location and routing most were not attractive partners for mergers with larger railroads. On the other hand, companies that provided routes between cities that were (and are) focal points of regional growth and that had shown consistency in service were attractive to the larger rail systems.

Short lines have played a significant role in the development of the economies of the areas they served. Those that have survived into the 1970s have done so because their routes are either integral to the statewide rail net or they serve a particular special interest. Their existence in the decade of the 1980s will continue to be dependent on these functional and spatial associations.

## NOTES

[1] William H. Wallace, "Freight Traffic Functions of Anglo-American Railroads," *Annals* of the Association of American Geographers, Vol. 52, No. 3 (Sept. 1963) 312-333.

[2] In 1956 a Class I railroad was defined as a company having annual operating revenues of $3,000,000 or more. The definition has been reworked several times since Wallace's study. Today a Class I railroad is one that has operating revenues greater than $50,000,000.

[3] Sy Reich, "Short Line Railroads in Georgia," *Railroad Magazine* (Nov. 1967) 46-48.

[4] The classification of "balanced" can be determined in three ways: (1) The two leading commodities each amount to more than 20 percent but less than 40 percent of the total tonnage with 10 percent or less disparity between them. The third commodity must represent more than 20 percent of the total and have a five percent or less difference from the second commodity; (2) The first two commodities each total between 20 and 40 percent with a 10 percent or less disparity while the third and fourth commodities each amount to more than 15 percent with a 10 percent or less disparity between the second and third items; and (3) The first commodity totals between 30 and 40 percent while the second commodity represents between 25 and 40 percent with less than 10 percent difference between the two. The third and fourth commodities combined must be greater than 25 percent.

[5] Wallace, 313-314.

[6] *Moody's Transportation Manual, 1978* (New York: Moody's Investors Service, 1978) 721.

[7] Report of the Savannah and Southern Railroad for 1915 to the Interstate Commerce Commission.

# EXPANSION OF THE PINE OLEORESIN INDUSTRY IN GEORGIA: 1842 TO CA. 1900

By Jeffrey R. Dobson and Roy Doyon

The first commercial extraction of pine oleoresin in Georgia occurred in 1842. During the following six decades, the industry developed from a minor experimental enterprise to a predominant land-use form which annually brought millions of dollars to Georgia's Coastal Plain. This study attempts to characterize the industry and to assess its impact upon the region from the first known extraction in 1842 to around 1900 when expansion ceased. The industry's role in developing the region and changes within the industry during its expansion phase are emphasized in the analysis. Specific questions to be examined are: (1) Was the industry more significant, both economically and culturally, than is generally recognized? (2) Was the exploitative character of the industry compatible with contemporary demands for cleared land for agriculture? (3) What factors most influenced the location of the industry during expansion?

Since the answers to these questions vary throughout the study period, they are discussed in the context of a chronology of the industry's diffusion in Georgia.

## CONDITIONS PRIOR TO INTRODUCTION IN GEORGIA

Gum naval stores (pine oleoresin) production was a major occupation in the North Carolina Coastal Plain from colonial time. Extraction began as early as 1665 and, after 1700, the colony became the major production center in North America. With cessation of naval stores production in New England around 1750, North Carolina was the western hemisphere's only cropping region for over a century. During this period, the only locational changes in the North Carolina industry were minor shifts of the cropping area. Large-volume production began in the Wilmington-Beaufort region around 1721, but because of technological destruction of trees, production shifted, by 1750, to the Washington-Albermarle Sound area. After 1800 North Carolina's production declined in the Washington-Albermarle region, and the producers began to move inland. Mobility of the industry was hampered by higher overland transport costs and by the requirement that processing could occur only in large distilleries at central locations. Economic recession after 1800 further depressed the industry in the Tarheel State.

In the 1830s, dramatic changes revitalized North Carolina's naval stores industry. Mobile copper distilleries, which allowed bulk reduction before transport, were introducted in 1834. Turpentine also was discovered to be an economical illuminator when mixed with alcohol, and it was

needed as a solvent in the developing rubber industry as well. With increasing demand for turpentine, the stage was set for expansion of production into the vast longleaf pine forests from South Carolina to Texas.

One key factor was responsible for maintaining production in North Carolina during the eighteenth and early nineteenth centuries. It was the popular myth which held that trees south of the Cape Fear River were unproductive of gum (oleoresin). By 1836 experiments exposed this myth for what it was, and by 1840 the Cape Fear River was no longer an artificial barrier. Production began in South Carolina that year and spread to Georgia in 1842. Extraction of gum occurred in Alabama and Florida by 1855 and in Mississippi and eastern Louisiana by 1860.[1]

Coastal Georgia was ripe for naval stores cropping in the mid-nineteenth century. In 1842 the region's population was relatively sparse, and vast portions of the tidewater were still covered with large stands of virgin longleaf pine. Only two roads (and no railroads) traversed the area in 1842, and none was needed by oleoresin producers until after the Civil War when forested areas adjacent to streams had been cleared. Poor productivity of the sandy pine barrens reduced competition by plantation and yeoman agriculturists for labor throughout much of the Georgia Coastal Plain. Finally, social attitudes toward cropping as a demeaning activity, which earlier had prevailed outside North Carolina, were beginning to decline throughout the South and were of little consequence through the Civil War period since most naval stores' laborers were slaves.

Even Georgia's legal codes contributed to the readiness of the state for extraction. A small-volume wood naval stores industry (tar and pitch recovered by slow combustion of felled timber) had existed in the state as early as 1744 and shipments were made to England in 1748.[2] British mercantilist policy resulted in a colonial law which established standards for packaging, marketing, and inspecting pitch, tar, turpentine, and other commodities.[3] The act of 1776 was adopted by the state's legislature upon independence and was modified and updated as needed prior to 1840. No modifications were required from 1840 to 1876 when extraction methods and classification became more refined.

## DIFFUSION IN GEORGIA

The industry's role in helping to settle the Georgia Coastal Plain is defined by its character during early expansion. Historians and chroniclers of the industry differ in their interpretation of this role because they have applied regional or long-term generalizations to a process which differed considerably over area and through time. The industry has been characterized as a pioneer enterprise at the leading edge of the agricultural frontier. Such a thesis appears likely in North Carolina during the 1700s when yeomen farmers supplemented farm incomes through ancillary forest activities. Lands so cleared by destructive practices could be utilized

more easily for agriculture and no doubt encouraged agricultural expansion. To some extent oleoresin producers thereby directed the course of agricultural development.

In South Carolina during the early 1700s, wood naval stores were extracted by slaves during low agricultural work seasons. Perry points out, however, that labor requirements in planting and harvesting crops were incompatible with large-scale oleoresin production because the seasons of peak labor demand coincided.[4] The same conflict would have precluded such an arrangement in Georgia. The more likely variant is that a production unit involving a landowner and several slaves would have oleoresin extraction as a major goal much in the way that plantations featured agricultural activity. This arrangement was well suited to attitudes, cultural trends, and tenure patterns in Georgia's tidewater area.[5] Finally, the activity in Georgia has been characterized as an industrial outgrowth of North Carolina's production complex. In this case, the industry would have been directed by conscious decision-makers from outside the state. These circumstances might inply either an infusion of capital from North Carolina or an exploitation of Georgia's pine barrens by non-Georgians. This latter thesis appears unlikely for the pre-Civil War period but bears investigation during the late 1800s when North Carolina's industry rapidly declined.

## PRE-CIVIL WAR DEVELOPMENT

The first instances of oleoresin extraction in Georgia occurred in the tidewater area south of Savannah where early producers relied upon inexpensive water transport for delivery to the Savannah market. Census schedules for 1850 suggest that extraction was first centered in Camden County (which then included most of present-day Charlton County) where six landowners engaged in the activity (Figure 1-A). Wayne and McIntosh counties were less important, having only one producer each in 1850. With a few exceptions, the producers were young, single, native Georgians with moderate level estate holdings ($3,000 to $7,000). Of the eight recorded producers, five were slave owners with combined holdings of fifty-six male slaves between the ages of 12 and 60, and three had no slaves. Assuming that slave owners were managers rather than workers, the industry could have had fifty-nine workers in the three counties. Glynn County apparently had some production since two men in the county listed themselves as oleoresin managers; but they had no land and no slaves and most likely they worked for other landowners.[6]

The impact of oleoresin land use upon the settlement process in Georgia was probably small. Oleoresin croppng seldom cleared more than 20 percent of the standing forest and lumbermen never cut cropped timber until well after the Civil War because of a prevalent belief that scarified trees made inferior lumber.[7] The most serious effect of oleoresin land use was unsightly islands of stunted, broken timber in a sea of healthy

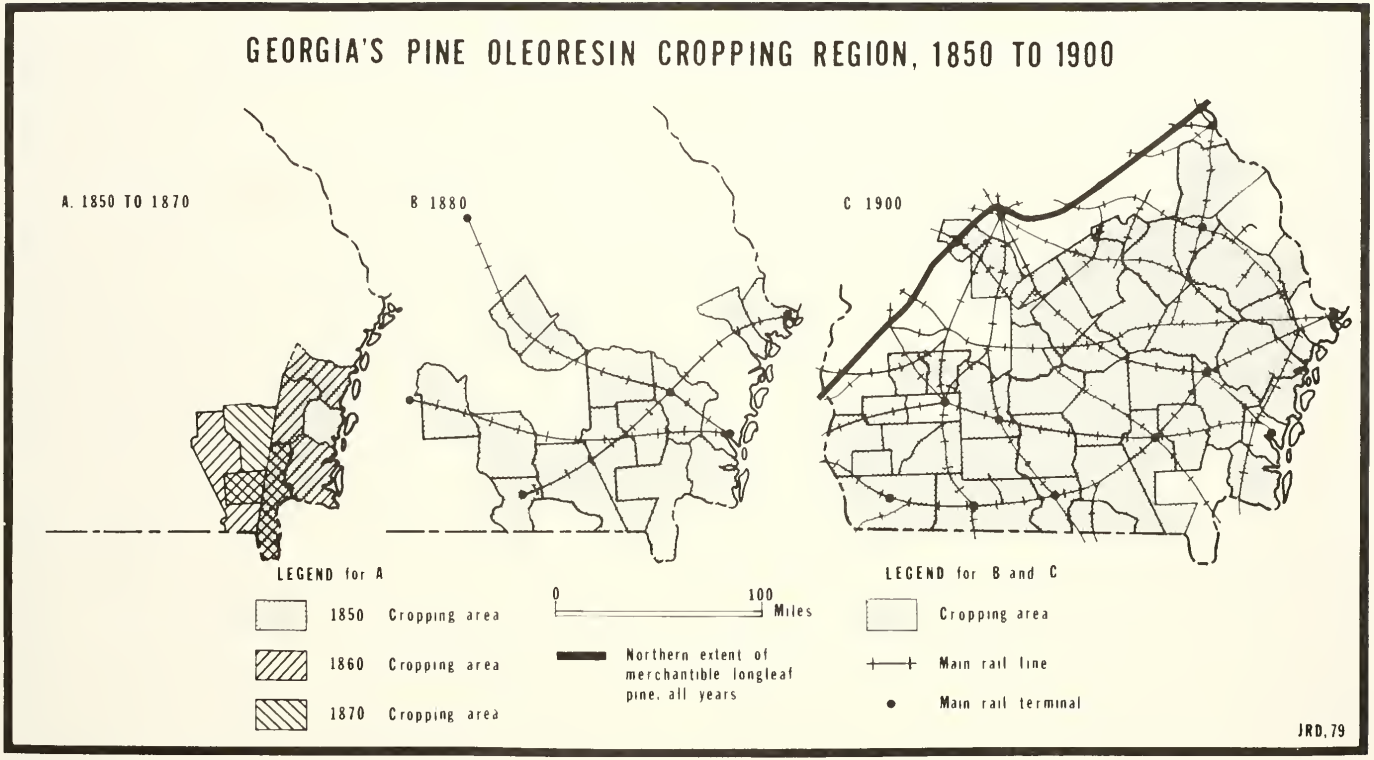

GEORGIA'S PINE OLEORESIN CROPPING REGION, 1850 TO 1900
A. 1850 TO 1870
B 1880
C 1900
LEGEND for A
1850 Cropping area
1860 Cropping area
1870 Cropping area
0
100
Miles
Northern extent of merchantible longleaf pine, all years
LEGEND for B and C
Cropping area
Main rail line
Main rail terminal
JRD, 79

*Figure 1*

pines, sometimes interspersed with cut-over land and agricultural fields. Economic incentives for settling on land previously cropped for oleoresin were small compared to incentives for settling cut-over lands. Though clear-cutting seldom occurred before 1880, cut-over land contained many fewer windfalls and standing trees than cropped land. Even if settling was encouraged by cropping, the total area involved was probably small. If each of the 202 oleoresin workers recorded in the 1850 census had worked a standard tract of ten acres, only around 2,000 acres would have been cropped at this date.

In 1850 the oleoresin industry in Georgia was of limited significance, contributing only $55,000 to the state's $7,000,000 gross manufacturing product. Oleoresin production was only significant in Camden County where much or all of the gross manufacturing product came from oleoresin sales.

From 1850 to 1860, the naval stores industry in Georgia grew in size and importance. The combined capital of oleoresin producers rose from $110,000 in 1850 to almost $200,000 in 1860 (Table 1). Although the number of establishments decreased from fourteen to twelve during the decade, the number of workers increased from 202 to 307. The expansion of capital and workers thus suggest that the industry became an important economic activity during its second decade in Georgia.

The location of the cropping region changed little during the 1850-1860 period except for addition of one small-volume producer in Ware County and cessation of gum activity in Glynn County (Figure 1-A). Charlton County, formerly a part of Camden, was the major producer in 1860, in number of producers (five) and in production capacity ($196,620). Camden County's one producer apparently comprised the largest single factility in Georgia with an investment of $45,750.

The core production area clearly remained in coastal and near coastal counties with only a hint of the inland shift which was to occur later.

Table 1

OLEORESIN PRODUCTION STATISTICS IN GEORGIA, 1840 TO 1909

| Year | Number of Establishments | Capital Investment | Number of Wage Earners | Volume of Sales | Gross Manufacturing Product for the State |
|---|---|---|---|---|---|
| 1840 | 0 | 0 | 0 | 0 | * |
| 1850 | 14 | 109,950 | 202 | 55,068 | 7,082,075 |
| 1860 | 13 | 196,620 | 307 | 236,111 | 16,925,564 |
| 1870 | 4 | 63,000 | 138 | 95,170 | 31,196,115 |
| 1880 | 84 | 513,885 | 2,646 | 1,455,739 | 36,440,948 |
| 1890 | 228 | 2,242,592 | 9,911 | 4,242,255 | 68,917,020 |
| 1900 | 524 | 3,785,432 | 19,199 | 8,110,468 | 106,654,527 |
| 1909 | 592 | 2,989,971 | 14,253 | 6,938,957 | 202,863,262 |

*Source:* United States Censuses.

*Gross manufacturing product unknown, but capital investments were 53 percent of capital investments in 1850.

Though the Atlantic and Gulf Railroad from Savannah to Thomasville was completed in 1860, its opening was too late to have affected significantly the cropping distribution that year, and coastal waterways remained the major transport routes for oleoresin movement.

In 1860, oleoresin production accounted for about 1.5 percent of Georgia's $17,000,000 gross manufacturing product. Though the percentage is small, it was aquired on only 3,000 acres of land. Its influence was distinctly local and was confined largely to an economic impact upon the lives of a few individuals. No large corporate investments occurred to infuse capital into the region, and the volume of sales was too small to affect appreciably regional development.

Cultural impacts on the region as a result of oleoresin activities were small at first because few people were involved; but to those who were part of the industry in the years following the formative stages, significant cultural changes began to occur. For example, during the 1850s the paternalistic camp system appeared in Georgia. By 1860 the standard working unit modeled upon the plantation system contributed much less to overall production than did the larger migratory work camps consisting of as many 100 slaves, a distillery, and a cluster of semi-permanent dwellings. The camp was a necessary adjustment to problems in economics of scale. Large units were more efficient, but they depleted larger areas and were forced to migrate continually. The migratory character of the industry thus coincides with the introduction of camps. Rapid turnover in active producers was a logical result of rapid depletion at the local level although large-area depletion would not occur for several decades. No listed producer of 1850 was still active in 1860.

The transition from an indigenous to an non-indigenous industry was completed by 1860. In that year only three of eighteen Whites in the oleoresin industry were native born, and two of the three were young sons of a North Carolinian. Despite historical accounts of major migrations from North Carolina, it appears that more than half of Georgia's newcomers were from Virginia.[11] There is little direct evidence to link the two phenomena, but it is known that relative agricultural decline in Virginia prior to the war caused out-migration.[12] Ward noted that during Reconstruction wealthy Virginians relocated and began turpentining (extracting oleoresin) in south Georgia.[13] Since oleoresin extraction ceased in Virginia after 1620, none of the migrants could have worked in the industry prior to migration. It is likely that such movements involved men with adequate capital who left an area in decline to seek opportunity in a growth industry located in a potentially more prosperous region.

## POST-CIVIL WAR DEVELOPMENT

The Civil War almost totally obliterated oleoresin production in Georgia. Emancipation meant loss of capital and labor for the producers. Moreover, railroads were destroyed, shipping was halted, and markets

were lost. And foreign production of naval stores increased during the conflict as Europeans sought to free themselves of dependence upon American oleoresin. In Georgia, the postwar industry, like the region, was in chaos.[14] In 1870, only two counties were producing oleoresin. Three producers working in Charlton County and one in Pierce County were seeds of the post-War industry rather than remnants of pre-War development (Figure 1-A). By 1870 capital holdings of oleoresin producers declined from $200,000 in 1860 to $63,000; sales fell during this period from $236,000 to $95,000, and; the number of laborers dropped from 307 to 138.[15]

Census schedules for 1870 list as turpentine workers only 42 of the 138 wage earners in the industry; however, other workers may have listed themselves as "laborers" or they could have been recent migrants who failed to register as Georgia residents. Of the 42 persons listed, the majority were non-Georgians. Fourteen came from North Carolina, eight from Virginia, and five from other states. This small number of workers precludes the possibility that Georgia's oleoresin work force was largely a relic of slavery.

Information about the location of oleoresin activities in Georgia in 1870 suggest that coastal production was being closed out at this time and that inland production, dependent upon rail transport, was beginning to emerge as the more significant case. Pierce County, on the Atlantic and Gulf rail line, was the first of a new wave of oleoresin producing counties along the post-bellum rail network. Though Pierce County's volume of sales in 1870 was relatively low ($17,000), the $40,000 investment of a single producer indicates a change in scale of operation, and from this time on Georgia establishments exhibit a larger scale of activity than occurred in North and South Carolina. This change is significant because larger producers tended to be more exploitative. They often worked a tree for only two years before abandoning it because of declining yields in the third and fourth years.[16] North Carolina's trees declined at the same rate, of course, but the smaller operators there used each tree more intensively and over a longer period of time. Hence, Georgia's yields per crop were usually higher than those in other states.

The greatest expansion of the Georgia industry occurred from 1870 to 1900. Sales volumes rose from $95,000 to $8,000,000 in the thirty year span, with dramatic increases in evidence during each decennial census period. From 1870 to 1900, the industry virtually exploded in cropping area and in volume of sales, with the 1880 sales figure of $1,500,000 representing four percent of the state's gross manufacturing product. Census returns for 1880 show oleoresin production being divided among thirteen counties throughout the southeastern and south central portions of the state (Table 2). With the exception of McIntosh County and three counties on the edge of the longleaf range, every county along the region's three railroads was in production. Linear extensions of the industry spread

Table 2

OLEORESIN PRODUCTION STATISTICS, BY COUNTY, VERSUS ALL OTHER MANUFACTURING, 1880

| County | Type & No. of Establishments | | Capital | Number of Employees | Total Wages | Value of Products | Comparative Percentages* Capital | No. of Emp. | Wages |
|---|---|---|---|---|---|---|---|---|---|
| Appling | Oleoresin | 9 | 63,600 | 161 | 28,632 | 116,200 | 41 | 65 | 63 |
| | Other | 6 | 91,500 | 88 | 16,750 | 93,150 | 59 | 35 | 37 |
| Berrien | Oleorsin | 6 | 31,700 | 137 | 25,500 | 100,000 | 43 | 88 | 83 |
| | Other | 2 | 41,500 | 18 | 5,144 | 42,000 | 57 | 12 | 17 |
| Bryan | Oleoresin | 4 | 35,000 | 289 | 40,500 | 118,300 | 100 | 100 | 100 |
| | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Camden | Oleoresin | 1 | 12,000 | 30 | 8,000 | 30,000 | 5 | 32 | 27 |
| | Other | 5 | 216,000 | 58 | 21,352 | 318,333 | 95 | 68 | 73 |
| Chatham | Oleoresin | 2 | 9,000 | 60 | 14,750 | 60,000 | 1 | 7 | 4 |
| | Other | 71 | 967,850 | 768 | 319,538 | 3,489,418 | 99 | 93 | 96 |
| Clinch | Oleoresin | 1 | 5,400 | 80 | 10,000 | 20,000 | 6 | 73 | 38 |
| | Other | 2 | 80,000 | 32 | 16,000 | 145,900 | 94 | 27 | 62 |
| Dodge | Oleoresin | 6 | 41,000 | 263 | 56,400 | 105,000 | 64 | 76 | 75 |
| | Other | 6 | 22,650 | 86 | 19,000 | 119,000 | 36 | 24 | 25 |
| Emanuel | Oleoresin | 1 | 10,000 | 77 | 10,000 | 25,000 | 28 | 64 | 49 |
| | Other | 4 | 26,000 | 48 | 10,400 | 85,750 | 72 | 36 | 51 |
| Lowndes | Oleoresin | 2 | 7,500 | 120 | 16,000 | 33,600 | 17 | 69 | 58 |
| | Other | 14 | 37,300 | 58 | 11,645 | 80,514 | 83 | 31 | 42 |
| Pierce | Oleoresin | 8 | 76,000 | 287 | 55,000 | 146,050 | 39 | 90 | 70 |
| | Other | 4 | 118,000 | 38 | 22,500 | 150,675 | 61 | 10 | 30 |
| Telfair | Oleoresin | 5 | 28,500 | 107 | 31,759 | 80,000 | 77 | 91 | 91 |
| | Other | 3 | 8,700 | 11 | 3,300 | 31,844 | 23 | 9 | 9 |
| Ware | Oleoresin | 2 | 8,500 | 168 | 16,000 | 44,000 | 10 | 79 | 53 |
| | Other | 4 | 73,000 | 46 | 14,400 | 141,000 | 90 | 21 | 47 |
| Wayne | Oleoresin | 13 | 81,600 | 298 | 70,275 | 35,430 | 42 | 74 | 63 |
| | Other | 7 | 111,000 | 100 | 40,500 | 209,325 | 58 | 26 | 37 |
| Worth | Oleoresin | 6 | 25,000 | 127 | 25,400 | 82,075 | 57 | 80 | 79 |
| | Other | 6 | 18,500 | 27 | 6,850 | 88,805 | 43 | 20 | 21 |
| Totals | Oleoresin | 66 | 434,800 | 2,204 | 408,216 | 995,655 | 33 | 76 | 66 |
| | Other | 134 | 1,812,000 | 1,378 | 507,379 | 3,366,590 | 67 | 24 | 3 |

*Chatham County is atypical and is excluded in the computation of the total comparative percentages.
*Source: U.S. Census, 1880.*

outward along the Macon and Brunswick, the Brunswick and Albany, and the Atlantic and Gulf railroads (Figure 1-B). As evidence of the importance of rail access, counties without rail service failed to have any commercial oleoresin production.[17]

By 1880 lumbermen had discovered that cropped timber was equal to uncropped timber in suitability for lumber. The two enterprises—lumbering and oleoresin extraction—were finally compatible, and a management policy called "turpentining ahead of the cut" became prevalent.[18] This change was the third in a series of seven innnovations which allowed the industry to survive at crucial times when it might otherwise have been forced into oblivion by voracious consumption of its basic resource, timber. The first innovation was the shift from combustion recovery to oleoresin extraction in the early 1700s. The second was development of the copper still, which reduced transport costs and allowed more extensive exploitation. After "turpentining ahead of the cut," a

series of innovations were developed, including the clay pot, the metal cup, acid applications, and double-headed nails. If compatibility had not been achieved by the two industries during the late nineteenth century, oleoresin production would have been unable to compete effectively with lumbering.[19]

Census schedules for 1880 refute the most widely accepted interpretation of the origin of Georgia's oleoresin labor force. The concensus that Georgia's Black laborers were derived from the slave labor force of the declining North Carolina industry is not supported by the evidence. Most of the workers were indeed migrants, but forty percent of them came from states other than North Carolina (Figure 2). The Blacks who migrated from North Carolina were predominantly young men who were pre-adolescent in 1860. Since production declined dramatically after 1860 and slavery ceased in 1865, it is impossible for North Carolinians to have worked in the industry as slaves.[20] In further contrast to the concensus, as late as 1880 the number of migrants from North Carolina was equaled or exceeded by migrants from Virginia where no commerical oleoresin extraction had occurred since 1620. The conclusion is inescapable. Georgia's oleoresin work force did not originate in a former slave oleoresin work force in North Carolina or anywhere else. The workers undoubtedly were young, poorly educated Blacks who viewed oleoresin work as suitable employment. Despite labor shortages throughout the South in the Reconstruction period, young Blacks freely chose to enter the turpentine trade. The industry may have enjoyed advantages over other employment, especially agriculture, because: (1) special skills were not required, yet pay was adequate and fringe benefits were good; (2) work in the pine barrens offered a measure of freedom not found in most other jobs, and; (3) forest work bore fewer resemblances to plantation agriculture which for many former slaves was synonymous with servitude. Additionally, though work was hard and employers demanding, the extensive nature of the industry meant that supervision was often poor. Shelton notes that workers could take advantage of employers by becoming indebted to them and running away.[21] This is in contrast to agricultural operations where indebtedness often resulted in a lifetime of peonage for the sharecropper or tenant farmer. Life in the turpentine camps was viewed by many whites as a picturesque, communal existence for Blacks. It is unclear whether the Blacks shared this feeling. The camp offered a simple, secure existence which may have appealed to those who felt trepidation about the White world around them. The patronage system offered cradle-to-grave security for workers, and employers acted as adversaries for their employees in the outside world. Whatever the basis for their decisions, it is likely that, given their educational status, Blacks chose the industry for positive rather than negative considerations. Clearly, without strong positive inducements, employers never could have attracted the thousands of young workers who entered the industry from 1870 to 1900.

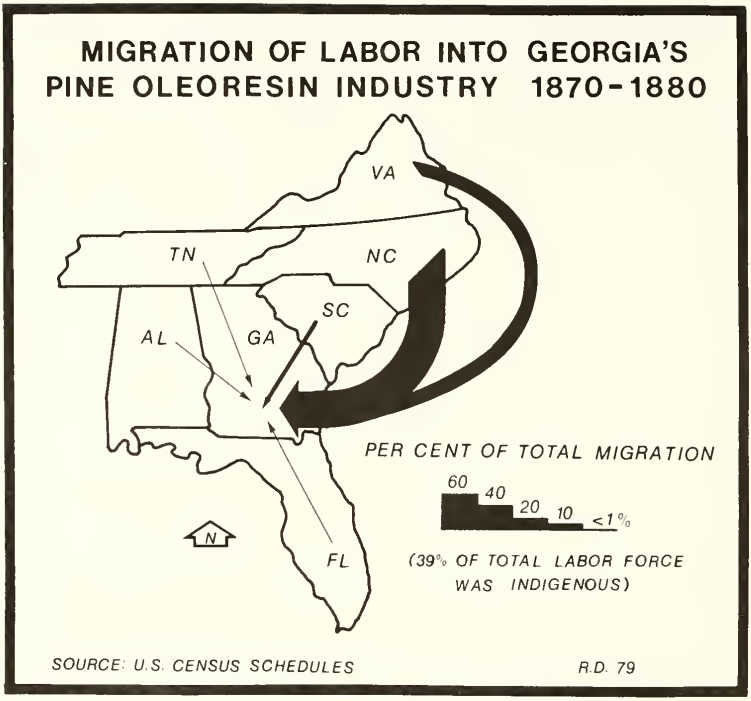



Figure 2.

Ward describes the process of out-of-state labor recruitment around 1880 as follows:[22]

> At the close of each year's work the turpentine men would go back to the Carolinas and secure negroes by the train loads. They would unload . . . and haul the negroes and their families out to the stills and deposit them in cabins prepared for them.

The employers apparently sought Carolinians as laborers because they had problems in quality control with the Georgia work force.[23] This might lead one to assume that workers attracted to Georgia were familiar with oleoresin production in the Carolinas before they migrated. The fact is that after 1860 there was an insufficient number of laborers in North Carolina and South Carolina combined to account for all the workers entering the Georgia industry, even if worker mortality and attrition are ignored (Table 3).

Table 3

NUMBER OF OLEORESIN LABORS IN GEORGIA AND IN THE CAROLINAS, 1860 TO 1919

| | 1850 | 1860 | 1870 | 1880 | 1890 | 1900 | 1909 | 1919 |
|---|---|---|---|---|---|---|---|---|
| Georgia | 202 | 307 | 138 | 2646 | 9911 | 19,199 | 12,787 | 7078 |
| Carolinas | 3078 | 5165 | 1691 | 6304 | 3990 | 1286 | 582 | 110 |

*Source: United States Censuses.*

The question of the origin of Georgia's 19,000 workers in 1900, therefore, remains open. Undoubtedly, many were brought in from the Carolinas, but it is impossible for a high percentage of the workers to have worked in the Carolina industry. Furthermore, if the majority of Georgia's workers came from the Carolinas as some writers contend, they could not have been experienced workers as the employers seemed to think.[24] On the other hand, if all the migrant Carolinians were experienced workers, migrants from those states could not have formed a high percentage of Georgia's labor force because of the limited extent of oleoresin production and employment opportunities in the Carolinas at this time. Either the writers are incorrect concerning the percentage of Carolinians in the Georgia industry, or the employers were importing bogus workers. An examination of census schedules in 1900 indicates that many of the workers were, in fact, native Georgians. Additionally, leased convict laborers accounted for more than five percent of the total labor force.[25]

Expansion of Georgia's oleoresin industry continued as new rail lines and later tramways extended rail access throughout the pine barrens.[26] In 1890 the industry consisted of 228 establishments, 10,000 laborers, and a total capital investment of almost $700,000. Sales exceeded $4,000,000. At the turn of the century the number of establishments had increased to 524 with 19,000 wage earners and a capital investment of $3,800,000. Statewide oleoresin income was over $8,000,000 eight percent of the state's gross manufacturing product.[27] Expansion throughout Georgia's pine barrens was virtually complete by 1890 as the rail network reached every county in the region (Figure 1-C). After 1887, when the state approved measures allowing rights-of-way for private tramways, every part of the naval stores region had access to rail transport.[28] This allowed more rapid exploitation of the pine barrens than previously had been possible. In 1900, 39 counties reported oleoresin operations, and all of these had railroad connections.

As suggested earlier, oleoresin production had a significant impact upon the State of Georgia from 1870 to well after 1900. The main reason for this impact lies not in the volume of transactions, but in the location of the industry. The activity took place in those areas of the state where other economic possibilities were minimal, and forest enterprises provided a major impetus to the development of the vast almost untapped region. Towns and cities benefited from oleoresin processing and distribution, often in the absence of other manufacturing. The development of Savannah as a prosperous port city depended in part upon its status as the oleoresin market of the world; and for many counties in coastal Georgia, oleoresin sales were the only source of manufacturing income.[29]

Capital investments from outside the state benefited the region too, because many investors came into the state and remained as lifelong residents, and profits were seldom taken from the state by absentee developers. Turpentine men, as producers were called, often became wealthy counterparts to the aristocratic planters and frequently engaged in local developments as financiers or philanthropists. There is little doubt that regional development of the pine barrens was greatly advanced by the presence of the industry.

At the turn of the century Georgia's oleoresin industry consumed over 250,000 acres of new pine lands each year. Along with clear-cut lands which were not "turpentined before the cut" this rate of exploitation led to total decimation of the state's majestic virgin stands of longleaf pine. By 1908 when oleoresin production peaked, landowners had become aware of the folly in destructive turpentining. Lease prices amounted to as much as $1,500 per crop per year (compared to as little as $100 per crop a few years earlier). Other production areas in Florida, Alabama, Mississippi, Louisiana, and Texas, which were still stocked with virgin timber, drew the industry from the state until their pines were also depleted. Georgia's production could not rebound until the 1920s when second-growth timber reached workable size, and the clear-cut areas of the 1880s became an unexpected asset which allowed rebirth of the industry in the 1920s.

## SUMMARY

Historical records and literature adequately depict the course of the pine oleoresin industry. The foregoing analysis, based upon these sources, provides answers to the three questions in the introduction. The first question concerning the economic and cultural significance of the industry consists of two parts which are considered separately.

The first part of question one concerns the economic significance of the industry. The industry was relatively insignificant until 1870, except at a very local scale, but by 1880 it had become a major force in the development of Coastal Georgia. Capital inputs were small compared to Georgia's total manufacturing investments but returns were good and profits remained in the region since producers usually migrated and became long-

term residents. The industry's location was strategic because it occupied a poorly developed region with low agricultural potential. Regional development was facilitated by oleoresin income and oleoresin processing brought industry to an industry-poor section of the state.

The first question also deals with the cultural significance of turpentining. During expansion in Georgia, the industry rapidly changed from small-scale operations based upon the plantation system to industrial concerns with the naval stores camp as the basic production unit. The camps formed a distinct cultural feature which may have eased former slaves' transition into free society. The industry appears to have been a suitable employment opportunity for young Blacks rather than a job of last resort. Producers did not capitalize upon a residual slave labor force from the pre-War industry from the Carolinas as depicted by some authors. Rather, they recruited laborers from outside the industry both in Georgia and the Carolinas, and when labor demand was highest they leased Georgia convicts to supplement the labor force. Turpentining was indeed of cultural significance in the region, but its importance is limited in that it affected only a small portion of the Black population of the state and an even smaller portion of the White population. Culturally, turpentining was most significant during the last three decades of the nineteenth century when the industry was large and the camp system prevailed.

The second question concerns the exploitative nature of the industry. Oleoresin probably contributed little toward the clearing of agricultural land before 1880. After 1880 operations became compatible with lumbering and were less destructive than in prior years. Where "turpentining ahead of the cut" was not practiced exploitation continued because lumber operations were clearing more land that was being utilized for agriculture. When not coincident with lumbering turpentining damaged or destroyed millions of acres of Georgia's forest resources. The loss was not apparent until depletion of the longleaf pine occurred shortly after 1900. A contemporary factor resulting from this damage was early regeneration of second growth timber necessary for revitalization of the industry thirty to fifty years later. There is little doubt that the industry was exploitative in nature during expansion in Georgia, but there is no evidence to suggest that forest land damaged by turpentining was utilized for agriculture in sufficient quantity to offset the loss of the forest resource.

The third question asks which factors most affected location of the industry within the region. At the regional scale, availibility of labor in the pine barrens was the overriding factor which allowed the industry to enter Georgia's forests. At the local scale, however, access to market remained the most crucial location factor throughout the expansion era. Prior to the Civil War, water access was vital to the industry. By 1880, most coastal areas had been cleared of timber and rail lines crossed the region. From 1880 to 1900 the industry was directed by rail expansion

throughout the pine barrens. Wherever virgin longleaf pines and rail lines coexisted, oleoresin production occurred. Where there were no rail lines, the trees remained untapped.

The foregoing analysis is illuminating, but it is far from complete. The oleoresin industry deserves continued research by geographers, historians, economists, and other scholars and scientists. Like a fallen empire, a once-great industry in decline offers hope of lessons to be learned from experience. Expansion of the industry in Georgia may parallel growth of similar industries in developing economies the world over. As for academic interest in the industry per se, recent developments such as the renewed search for alternative hydrocarbon resources caused by petroleum depletion and price increases may someday reverse historical trends of decline. The scientific community should be prepared with a full understanding of pertinent aspects of this and other resource-related industries. Studies such as this one should contribute to such an understanding.

## NOTES

[1] *United States Census, 1880,* special report on *Forests of North America,* p. 516.

[2] Donald Martin, "An Historical and Analytical Approach to the Current Problems of the American Gum Naval Stores Industry," unpublished Ph.D dissertation (University of North Carolina, Chapel Hill: 1942), p. 83.

[3] Oliver H. Prince, comp., *A Digest of the Laws of the State of Georgia,* Oliver H. Prince (Athens: 1837), p. 814.

[4] Percival Perry, "The Naval Stores Industry in the Ante-Bellum South, 1789-1861," unpublished Ph.D dissertation (Duke University: 1947), p. iii.

[5] Percival Perry, "The Naval Stores Industry in the Old South, 1790 to 1860," *The Journal of Southern History,* Vol. 34 (Nov., 1968) p. 516.

[6] *United States Census, 1850,* passim.

[7] Martin, *op cit.,* p. 92.

[8] Area of land utilized is estimated on the basis of 300 barrels per crop of 10,000 faces occupying 200 acres of land. Since crops were worked three to four years, about 35 percent of the total acreage had to be newly invaded each year. Census figures should be viewed as indicating general levels of production. Reliability could not always be assured because of the "backwoods" nature of the industry.

[9] *United States Census, 1850,* passim.

[10] *United States Census, 1860,* passim.

[11] *Ibid.*

[12] Virginius Dabney, *Virginia: The New Dominion,* Doubleday and Co., Inc. (New York: 1971), pp. 275-281.

[13] Warren P. Ward, *Ward's History of Coffee County,* The Reprint Company, Publishers (Spartanburg, S.C.: 1978), p. 313.

[14] *Report of the Secretary of Agriculture, 1892,* U.S. Government Printing Office (Washington, D.C.: 1893), p. 335.

[15] *United States Census, 1870,* passim.

[16] *United States Census, 1880, op. cit.,* p. 517.

[17] Martin, *op. cit.,* p. 78.

[18] Rupert B. Vance, *Human Geography of the South,* 2nd ed., Russell and Russell (New York: 1968), p. 121; *Report of the Secretary of Agriculture, op. cit.* pp 330-331.

[19] United States Census, 1880, *op cit.,* p. 517 and *Report of the Secretary of Agriculture, op. cit.,* p. 331.

[20] Even if all 6,000 slaves in the industry in 1860 had remained active in 1880, 3,000 new non-slave workers would have been added to the industry.

[21] Jane Twitty, Shelton, *Pines and Pioneers, a History of Lowndes County, Georgia, 1825-1900,* Cherokee Publishing Company (Atlanta: 1976), p. 202. Of course, peonage did occur, Shelton points out that most workers owed their employer $200 to $300. In order to acquire a new worker, an employer would usually pay off the worker's debts to the former employer. Economic demands for a worker's services thereby alleviated some of the restraints of indebtedness. Recruitment by "outsiders" was considered deplorable and numerous local ordiances were passed to control "enticement" of workers.

[22] Ward, *op cit.,* pp. 312-313.

[23] Shelton, *op. cit.,* p. 184.

[24] *Ibid.,* p. 312.

[25] *Fourth Annual Report of the Prison Commission of Georgia,* J.F. Lester (Atlanta: 1901), p. 37-38.

[26] John L. Hopkins, comp, *The Code of the State of Georgia,* Vol. 1, Foote and Davies Co. (Atlanta: 1911), p. 210; Jefferson Dixon, "Georgia Railroad Growth and Consolidation, 1880-1917, "Unpublished Master's thesis (Emory University: 1949), p. 49.

[27] *United States Census,* 1890, passim.

[28] Hopkins, op. cit., p. 210; Dixon, *op. cit.,* p. 49-50.

[29] Martin, *op. cit.,* pp. 86-87.

[30] Shelton, *op cit.,* p. 312; Ward, *op cit.,* pp. 311-313.

# THE GEORGIA-FLORIDA LAND BOUNDARY: PRODUCT OF CONTROVERSY AND COMPROMISE

By Burke G. Vanderhill and Frank A. Unger

Florida came into American hands well after the establishment of the United States and General Land Office, and her public lands were surveyed on the familiar GLO grid. Within a narrow strip of territory along Florida's land boundary with the state of Georgia, however, there are survey units which do not conform to the GLO system. Examination reveals that these tracts are fragments of Georgia land lots overlapping the Florida line, a fact clearly suggesting a jurisdictional dispute and a boundary adjustment.[1] Despite its significance for landholding and field patterns and for road alignment, the survey anomaly along Florida's northern margin—the so-called "Georgia Fractions"—is not widely recognized nor understood today.[2] The present study sought to explain the phenomenon through an investigation of the genesis of the Georgia-Florida land boundary and of the controversies which accompanied its demarcation.[3]

The boundary between Georgia and Florida as it stands is drawn from the 31st parallel of latitude along the channel of the Chattahoochee River to its junction with the Flint, then in what aproximates a straight line overland to the head of the St. Marys, whose course it follows to the Atlantic. It was so fixed initially by the Royal Proclamation of George III in 1763 when, as a result of British acquisition of Florida after the French and Indian War, it became necessary to establish the northern limits of the new province of East Florida in an area long plagued by conflicting Spanish and British territorial claims. The boundary was affirmed in 1783 by the Treaty of Peace between Great Britain and the United States following the Revolutionary War, under which Florida was returned to Spain, and reaffirmed in 1795 by the Treaty of San Lorenzo between the United States and Spain.

Although it had formed a portion of an international boundary since 1783, the geometric line from the mouth of the Flint to the head of the St. Marys had not been surveyed. Worse, the middle and upper reaches of the St. Marys were only vaguely known and the source of the stream had not been determined. Such questions were addressed in the 1795 treaty, which authorized the appointment of a commissioner and a surveyor for each of the two concerned parties, the United States and Spain, and directed them to run and mark the Spanish-American boundary as delineated. The commissioners were further instructed to ". . . make plats and keep journals of their proceedings, which shall be considered as a

part of this convention, and shall have the same force as if they were inserted therein."[4] The latter proviso was to have special significance when, at a later date, the alignment of the land boundary between Georgia and Florida was in question.

Implementing the boundary provisions of the Treaty of San Lorenzo in 1796, Andrew Ellicott and Captain Esteban Minor were appointed commissioners on behalf of the United States and Spain, respectively, to run and mark the Spanish-American boundary from the Mississippi River eastward to the mouth of the St. Marys. By late 1799 the line had been marked as far as the junction of the Chattahoochee and the Flint, but Indian harassment near that point forced the Ellicott-Minor party to proceed to the lower St. Marys by sea. During January and February of 1800, at a time of high water, they ascended and mapped the river and found that the main channel issued from the Okefenokee Swamp at its southern margin. A survey mound—since known as "Ellicott's Mound"—was placed "on the west side of the main outlet as near to the edge of the swamp as . . . (they) could advance on account of the water."[5] The head of the river was identified as being a point in what was estimated to be mid-channel, "640 perches" (two miles) N. 45°E of the mound.[6] After astronomically determining the latitude and longitude of the mound and calculating it for the point in the river, the commissioners withdrew from the St. Marys to prepare their report without running the ground survey of the Ellicott-Minor line (Figure 1).

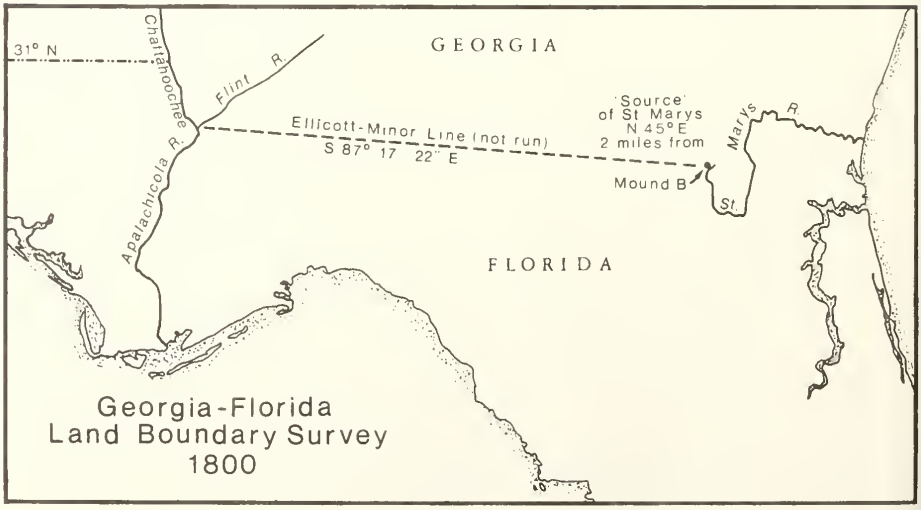



Figure 1.

An approximate landward boundary line could now be drawn based on a calculated angular bearing using the spherical coordinates of the two termini; the junction of the Flint and Chattahoochee and the "source" of the St. Marys. The eastern end of the line was to run approximately 1.4 miles north of and to the point two miles northeast of Ellicott's Mound. Ellicott stipulated in his record that the eventual surveyed line should be no less than one mile north of the mound, and if this were not the case, the line should be resurveyed to correct it.[7]

The failure of Ellicott and Minor to run the line and the offset between the survey mound and the inaccessible point designated as the true head of the St. Marys River left the boundary issue unsettled.

The Georgia-Florida boundary was given little attention by the United States government as long as Florida remained a Spanish possession. The fact that it was unmarked became a matter of concern to the state of Georgia, however, for in 1802 the Creek lands west of the Indian Boundary were ceded to the state and, subsequently, were opened to settlement under state auspices. As Georgia's land lot survey proceeded the need for an established southern boundary became more critical. In 1816 the Georgia Legislature requested the Governor to urge the federal government to fix and mark a line from the mouth of the Flint to the head of the St. Marys.[8]

At this point came the first challenge to the Ellicott-Minor line. William Cone, a Georgia legislator with personal knowledge of the St. Marys, claimed in 1817 that Ellicott was mistaken and that an accurate survey would indicate that the true source of the river was the head of its middle prong, about twenty miles south of Ellicott's Mound. The Georgia Legislature authorized Governor William Rabun to appoint commissioners to investigate the matter and in 1818 Major Generals Wiley Thompson and John Floyd and Brigadier General David Blackshear were named for this purpose. Their party visited the upper St. Marys during a relatively dry period and could find no direct linkage between the river and the Okefenokee Swamp. Nevertheless, after exploring the area, they reported early in 1819 that in their opinion "Mr. Ellicott and the Spanish deputation were correct in establishing on the northern branch the point of demarcation between the state of Georgia and the province of East Florida."[9]

Meanwhile, the federal government had responded to Georgia's request for a boundary survey by directing Wilson Lumpkin, then engaged in boundary work in northern Georgia, to run a provisional line from the Flint to the St. Marys, but in early 1819, with the accession of Florida in the offing, Lumpkin's survey was suspended before much had been accomplished.[10] Thereupon, on May 1, 1819, Governor Rabun appointed Dr. William Greene to establish a "temporary" boundary in order that district survey parties might extend the land lot surveys to the southern margins of Georgia.[11]

Dr. Greene surveyed his line in a more southeasterly direction from the western terminus toward the middle prong of the St. Marys. He billed the state of Georgia for his services in October, 1819, although it is not clear how far the line was run or how continuous it was.[12] His survey directly influenced the land lot surveys in four of the eight borderline Georgia Land Districts: the 21st and 22nd Districts of then Early County and the 14th and 16th Districts of then Irwin County all were carried south, over the Ellicott-Minor line, to the Greene line; the 23rd District of Early, the 15th District of Irwin, and the 13th and 11th Districts of then Appling were surveyed to the "Florida line," which followed the angle of the Ellicott-Minor line[13] (Figure 2). The Greene survey was viewed as highly inaccurate, cutting deeply into the territory of Florida, and in March, 1820, the new governor, John Clark was advised to appoint a more skilled surveyor for the task.[14]

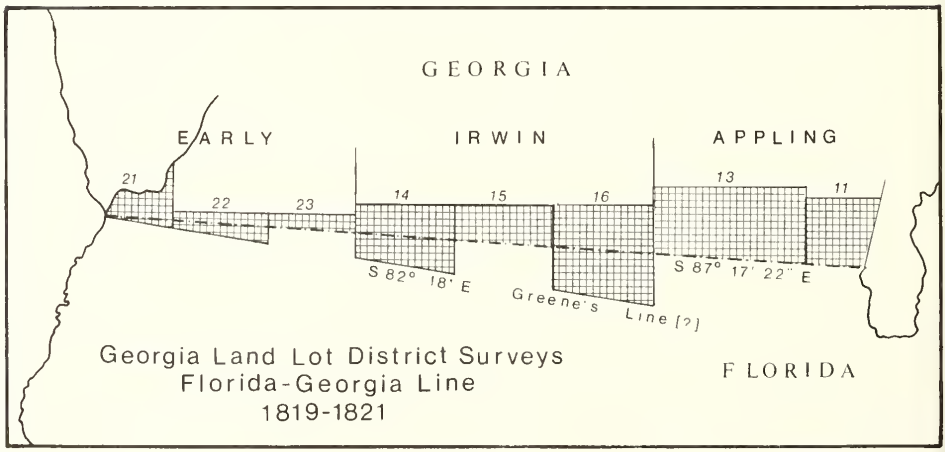



Figure 2.

Under pressure to open the land lottery in south Georgia as soon as possible, Governor Clark on April 28, 1820, appointed Colonel James C. Watson to run and mark a more accurate boundary. Watson completed his assignment very quickly, for final payment for his services was authorized early in June of that year. Unfortunately, Watson's survey maps and notes have been lost; in fact there is no record that they were ever filed, and there has been much confusion in regard to the eastern portion of the Watson line. Governor Clark made it clear, however, that Watson carried the line further than he was required to with respect to the upcoming lottery, and that he ran the line from the junction of the Flint and Chattahoochee a distance of "one hundred and eighteen miles, forty-six chains and fifty links" to a point a short distance east of the line dividing the counties (as then constituted) of Irwin and Appling[15] (Figure 3). To have stopped at such a point seems illogical, but when the stated distance

is scaled off along Watson's line as identified on later maps it appears that he terminated his survey on the western rim of a large swamp within what is now Hamilton County, Florida.

Contemporary questions surrounding the Watson line stem in part from the fact that in 1821 it was extended by the District Surveyor across the southern limit of the 13th District of then Appling County, and this extension subsequently appears on recorded surveys as Watson's line. Charles F. Smith, in a re-survey of the Watson line in 1874, further extended if from the southeast corner of the 13th District to the St. Marys, which it intersected some distance south of Ellicott's Mound (Figure 3). John A. Henderson, who re-surveyed the land within the boundary zone in 1879, traced the Watson line east to the boundary between districts 13 and 11 of Appling County, then, ignoring Smith's survey, offset to the McNeil line of 1825 (discussed below), following that line to the St. Marys.[16] For reasons unknown, the segment of the McNeil line between the district boundary and Ellicott's Mound so identified by Henderson now appears labelled on various official Florida maps as the Watson line, continuing the confusion.

The Watson survey was meant to expedite the land lot surveys of south Georgia in preparation for the land lotteries. It was authorized unilaterally by the state of Georgia to resolve what was considered a pressing problem. Although never officially recognized outside of Georgia, the Watson line assumed critical significance as land was patented along it under Georgia laws without reference to possible Florida rights.

While the land lotteries were under way in southwestern Georgia, settlers were also beginning to enter the new Florida territory, claiming tracts there described by the method of metes and bounds. An organized

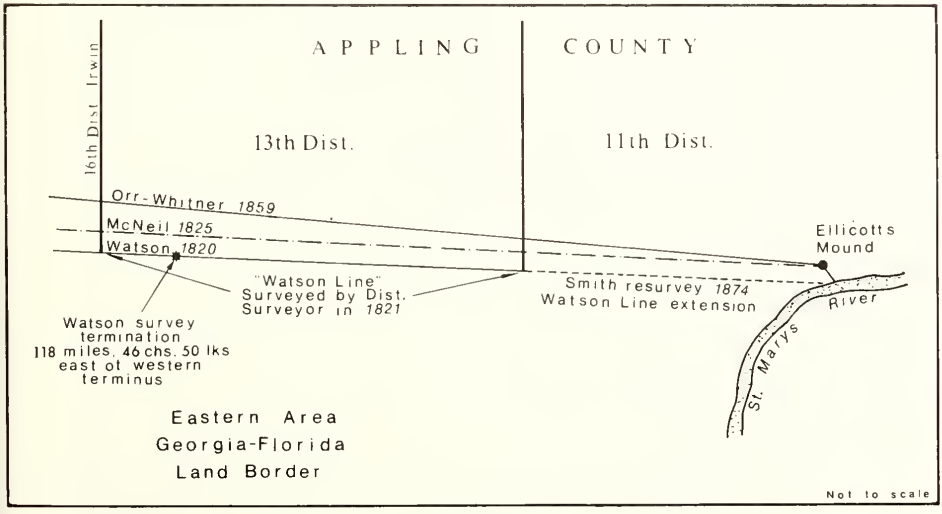



Figure 3.

survey was needed badly, and in 1823 the base line and principal meridian for a GLO grid were established, intersecting within what was to become the city of Tallahassee. Initial settlement was concentrated between the Apalahicola and Suwanee rivers—an area later termed "Middle Florida"—and the extension of township surveys to their northern limits had high priority.

The U.S. Surveyor General for Florida was authorized in late 1824 to run a boundary line from the mouth of the Flint to Ellicott's Mound and to survey public lands to that line. In the spirit of the Treaty of San Lorenzo and of the Spanish-American agreement of 1819, whereby Florida became part of the United States, it was noted that Ellicott's Mound ". . . must be taken and considered as one of the fixed points in the boundary line between Georgia and Florida whether it may actually be north or south of the true point or not."[17] D.F. McNeil was appointed on February 12, 1825 to conduct the boundary survey, and the line was run in ensuing months. The McNeil line lay north of the Watson line, the distance reaching nearly a mile at its maximum. Subsequent Florida land surveys were closed upon the McNeil line for much of its length, although two townships (T3N, R3W and T3N, R3E) were extended only to the Watson line.

Fractional sections made upon the Watson line were to be reserved from sale until the boundary question was resolved.[18] The McNeil line served Florida as a *de facto* boundary for many years, however, and lands platted to that line were alienated with little apparent regard for Georgia patents already issued.[19] Thus, the Georgia-Florida boundary dispute was not solely a disagreement over alignment but involved the problem of overlapping land titles.

The McNeil survey was noted with alarm in Georgia and was vigorously protested. At the request of Georgia, and in the hope of settling the issue, a Congressional Act of 1826 authorized the survey and marking of a dividing line between Georgia and Florida. To the consternation of Georgia, however, the act stipulated that the line ". . . shall be run straight from the junction of said rivers Chattahoochie (sic) and Flint to the point designated as the head of St. Mary's River by the Commissioners appointed under the 3rd article of the Treaty of San Lorenzo."[20] Thus, Ellicott's determination was given the force of law.

To implement the Act of 1826, Thomas M. Randolph was appointed commissioner on behalf of the United States, and Thomas Spalding was named commissioner for Georgia. Having engaged John W. McBride as surveyor, the Randolph-Spalding party began its work in March, 1827, from a point one mile due north of Ellicott's Mound. Despite the apparent reluctance of Georgians Spalding and McBride, a random line was to be run to the mouth of the Flint, and a true line was to be marked from that point back to the St. Marys. In a report to Governor George M. Troup of Georgia, Spalding had expressed concern for the reaction of settlers

to a third boundary survey within seven years and had raised the question of possible "feuds between Georgia and Florida."[21] Unhappy with the new line, which in places was a full two miles north of the McNeil line, Governor Troup recalled Spalding when the survey party was about forty miles from the junction of the Flint and the Chattahoochee and unilaterally suspended the operation pending the results of a survey he had ordered McBride to make of the "true head" of the St. Marys.

Although Georgia's surveyors had been withdrawn, the line was completed to the river junction under Randolph's supervision and the return line was marked to Ellicott's Mound, judged by Randolph to be the most logical eastern terminus. The Randolph line was not adopted, but his reports are noteworthy. He found Ellicott's coordinates at the river junction to be in error, and that Watson and McNeil had not quite closed upon Ellicott's western terminus. Further, it was noted that their terminal marks were visible on trees which were standing in water at the time of the Randolph survey, revealing the effect of river level upon the precise point of confluence. Randolph found the "true" junction of the rivers—where they merged at high water—to be a mile north of that marked by Watson and McNeil. He also expressed the opinion that Ellicott was right in his identification of the Okefenokee as the source of the St. Marys.[22]

Meanwhile, McBride had concluded his field examination of the upper St. Marys and reported that on the basis of stream velocity the "south branch" (actually the middle branch) was the principal one. This branch is spring-fed and relatively constant in flow while the north prong is highly variable. At the time of McBride's visit, the north branch was nearly dry.[23]

McBride's report fueled Georgia's argument for a boundary redefinition, and on December 14, 1827, the Georgia General Assembly passed an act prohibiting the survey of territory between the Ellicott line and a future "true" line to be run to the proper head of the St. Marys; i.e., Lake Randolph, the source of the middle branch. The act stipulated that any land grants from the United States within the territory would be validated provided that the United States compensate the state of Georgia for such land within two years of running and marking the dividing line.[24]

The boundary question was referred to Congress in 1828 and a vigorous exchange of communications followed in which Georgia's refutation of and Florida's support for the Ellicott line were elaborated. Georgia's position in brief was that Congress had acted in 1826 in the erroneous belief that the point *designated* by Ellicott *was* the source of the St. Marys and that this error should be corrected. Among the arguments presented was one based upon the wording of the Royal Commission for Governor Sir James Wright, dated January 20, 1764, which confirmed his jurisdiction down to the "most southern stream" of the St. Marys. Given the state of geographic knowledge in 1764, this may

have referred to a distributary at the mouth of the river, but Georgia chose to interpret it in terms of the headwaters. Florida contended that it was strange that Georgia sat idle for 33 years while the border was drawn upon the Ellicott coordinates. Now that people were interested in the land, a spurious claim was being advanced and strongly promoted. The Committee of the Judiciary concluded, however, that Ellicott was correct in using what had always been considered locally the main course of the St. Marys and, therefore, his designated point ought to be the terminus of the boundary.[25] No further action was taken at this time.

Dissatisfied with the congressional response, the Georgia Legislature in 1830 approved a resolution demanding that the boundary be run from the Flint and Chattahoochee "to the head of the most southern branch of the St. Marys and that the said line ought to be marked without further delay."[26] By the spring of 1831, Joel Crawford and J. Hamilton Couper had been appointed commissioners to oversee the new boundary survey on behalf of Georgia, and E.L. Thomas had been engaged as surveyor. By mid-August a random line had been run from a point on the southern shore of Lake Randolph (also called Ocean Pond) to the mouth of the Flint and a corrected line had been marked back to Lake Randolph (Figure 4). The Crawford-Couper report confirmed that the St. Marys arises in the Okefenokee but insisted that the north prong is but a tiny stream dry at low water stages and that the "Ocean Pond drainage is the superior one." It was termed "negative evidence of some weight" that local residents in the upper St. Marys area spoke of *all* of the streams as branches or prongs of the St. Marys, and it was suggested that Ellicott's selection of the north branch "would have tended to confirm to that stream the sole and exclusive title of the St. Marys River, despite the practice of people to think of it as the 'north branch'."[27]

Congress was under pressure from Georgia for a number of years afterwards to designate the Crawford-Couper line as the boundary between Georgia and Florida, but the matter did not emerge from committee. If the claim of Georgia had been sustained, a triangular tract containing over 1,500,000 acres of land would have been taken from Florida, much of it occupied.

Florida played a minor role in the boundary controversy until statehood was achieved, but shortly thereafter, late in 1845, resolutions were approved in the legislatures of both Florida and Georgia authorizing the appointment of commissioners to settle the dispute. John Branch and William P. Duval were named by Florida, while Crawford and Couper were appointed on the part of Georgia. The commissioners met in March, 1846, but disagreed on the objective of their mission. The position of Florida was that the eastern terminus of the boundary was already legally established and, therefore, was not in question, whereas Georgia insisted that the true head of the St. Marys had yet to be determined and that such a determination was a necessary first step.

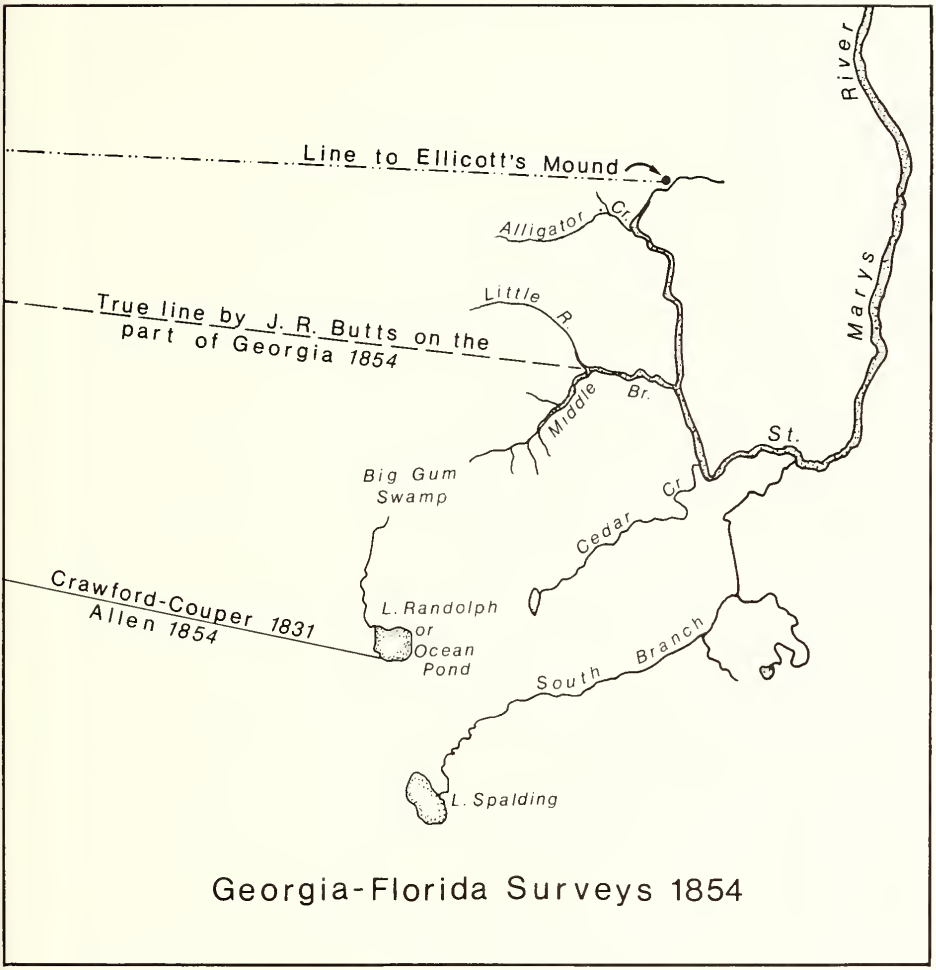



Figure 4.

Failing to reach an accord with Florida, Georgia in 1847 asked the Supreme Court of the United States to review the boundary question in the light of the Treaty of San Lorenzo, particularly questioning the validity of Ellicott's designated terminus at the St. Marys. Independently of Georgia, Florida filed a bill in the Supreme Court early in 1849 asking that body to "confirm and quiet" the boundary line.[28] Several years of sometimes acrimonious debate between the governors of Florida and Georgia ensued.[29]

An Interlocutory Degree was handed down by the Supreme Court in April, 1854, authorizing the governor of each state to appoint a commissioner and a surveyor to determine and mark the Georgia-Florida boundary. Florida appointed Benjamin F. Whitner as commissioner

and his son, Benjamin F. Whitner, Jr., became his surveyor. Alexander A. Allen was appointed commissioner for Georgia, and James R. Butts was named surveyor. Apparently, independent of the Florida group, Allen and Butts had resurveyed the Crawford-Couper line and surveyed another line which terminated at the junction of Little River and the West or Middle Branch of the St. Marys.[30] The new line lay north of the Crawford-Couper line but south of where the line would be run by the Commissioners were it to run to Ellicott's Mound. Butts designated it the "true line" in what was probably another attempt to settle on a more southerly *source* of the St. Marys, thereby splitting the difference in the disputed area (Figure 4). These actions by Allen and Butts did not alter Whitner's position and the commissioners agreed to run their line from "a point two miles N 45 E from Mound B to the junction of the Flint and Chattahoochee rivers" because they considered themselves instructed by the court to do so.[31] The resulting Butts-Whitner line was an experimental line which, while never adopted, was significant in that it foreshadowed a softening of Georgia's demands for a more southerly terminus.

The legislatures of both Georgia and Florida considered the boundary issue at length during 1857 and 1858, and finally agreed to adopt the Ellicott-Minor termini in order to set the matter at rest. Gustavus J. Orr of Georgia and Benjamin F. Whitner, Jr., of Florida were appointed the following year as surveyors instructed to run a new line from the mouth of the Flint to Ellicott's Mound. Both states late in 1859 approved acts which bound them to recognize the line then being run by Orr and Whitner provided that it did not miss Ellicott's Mound by more than one-fourth of a mile.[32]

The two surveyors had intended to run a random line eastward to the St. Marys and, should it fail to close within the stipulated quarter-mile of the mound, to lay out a correction line back to the Flint. Their initial line, actually a series of 33 short lines each deflecting southward of the preceding one in their progression from west to east, closed within twenty-five feet north of Ellicott's marker and, therefore, a correction line was thought unnecessary.[33] The final segment of the line from Mound B to the St. Marys was run "S36½°E" 8.64 chains to "the nearest point of the River" as "the general course of the River . . . is nearly west . . . (and) continuation of the line in the same direction would . . . (have) carried it into the Okefenokee Swamp"[34] (Figure 3). The Orr-Whitner line, between the western terminus and Ellicott's Mound, not only lay north of the Watson line but north of the McNeil line as well.

The report of the Orr-Whitner survey was filed in April, 1860, and the boundary was ratified by Florida at the next sitting of the state legislature in February, 1861. Over strong protests within his state, Governor Joseph E. Brown of Georgia recommended recognition of the Orr-Whitner line shortly after receiving the survey report. In his words, "I regret that Georgia has lost a strip of territory heretofore claimed by her, and some

valuable citizens residing upon it. There is no sufficient reason, however, why she should repudiate her solemn compact with Florida."[35] The Georgia Assembly was more reluctant to ratify the boundary, but in 1866, following the Civil War, also accepted the Orr-Whitner line. The agreement was recognized and confirmed by Congress on April 9, 1872, thus establishing the Georgia-Florida boundary officially and permanently upon the Orr-Whitner line.

The running of the McNeil line in 1825 had created a chaotic situation of clouded land titles and overlapping ownership along the Georgia-Florida border. The ratification of the Orr-Whitner line by Georgia in 1866, bringing into Florida additional land with Georgia land titles, complicated the picture. Although the Florida Legislature had voted in 1859 to confirm Georgia patents, there was much confusion and concern in the border zone. Records were often inaccurate and incomplete, procedures for verifying claims had not yet been worked out, and cases of contested ownership were still surfacing. The collection of property taxes was a particularly knotty problem, one which led to squabbling between tax accessors of Georgia and Florida.[36]

In an effort to reduce tensions arising from the border situation, the Congressional Act of 1872 which established the Orr-Whitner line as the boundary also quieted land titles within the boundary zone; i.e., titles to lands between the Orr-Whitner and Watson lines deriving from the state of Georgia were confirmed by the United States. Until land records were put in order, however, such confirmation of titles was by itself relatively ineffectual. The validation of Georgia claims remained a difficult task, as was the nullification of redundant Florida grants.

With the addition of land along its northern border, Florida felt the need to have the Watson McNeil, and Orr-Whitner lines marked more accurately, particularly in view of their importance to land description in the border zone. A reworking of the Watson line was authorized in 1873 with the purpose of closing section and range lines upon it and also upon the McNeil line wherever this had not been done. Range lines were to be extended to the Orr-Whitner line, but the actual subdivision of the land up to the Georgia boundary would have to await adjudication of the land claims based upon Georgia patents.[37] Surveyor Charles F. Smith in 1874 retraced and marked the Watson and McNeil lines, projecting the former to the St. Marys River as discussed earlier, and closed the Florida surveys upon them as well as upon the Orr-Whitner line.[38]

The problem of the organization of the space beween the Watson and Orr-Whitner lines, a space for the most part long occuppied, was a troublesome one. Georgia's land lot survey system was incompatible with the GLO system of Florida, yet because the land was settled the Georgia grid could not be vacated as is sometimes done in the case of residential plats. It was suggested that the Georgia patents be handled as private claims as had the Spanish and British land grants in Florida during territorial days, any

remaining public lands to be surveyed on the GLO grid.[39] The decision was made, however, to re-run the Georgia lot lines and fractional parts thereof now lying within the state of Florida, and to transfer into Florida records the land units so described. Further, the existing GLO survey to the McNeil line was deemed to be of no value since confirmed Georgia grants extended south to the Watson line.[40] The fragments of Georgia land lots within this narrow strip of northern Florida became known as the "Georgia Fractions."

The details of land ownership within the Georgia Fractions were difficult to establish, although a list of grants of land made by Georgia, with names of grantees, residence and dates, diagrams of landholdings, and other survey information, was conveyed to Florida authorities by the GLO in late 1876.[41] A special survey of the land between the Watson and Orr-Whitner lines was authorized in 1877 for the purpose of clarifying the tenure situation, resulting in the 1879 Henderson survey. While the Georgia claims were given major attention, in 1883 a question related to swamp and overflowed lands arose. Title to such lands, poorly defined at best, had been transferred to Florida by the United States under the Swamp Land Act of 1850, and it became evident that several tracts fell within land districts surveyed by Georgia in the 1820s, now south of the Orr-Whitner line.[42]

Most land claims and jurisdictional questions were settled during the 1880s, culminating in the case of *Coffee vs Groover*, one of overlapping ownership, adjudicated by the U.S. Supreme Court in 1887. Clouded titles and faulty records, however, continued to plague the border zone for many years.

The land boundary between Georgia and Florida is the product of some seventy years of controversy, a compromise solution to a long and often bitter dispute. Andrew Ellicott undoubtedly would have been amazed and chagrined if he could have witnessed the results of his failure to complete his boundary survey. The uncertainties of jurisdiction along the disputed border were vexing to officials and administrators at all levels, but were especially disturbing to those who took up land in good faith within the areas affected. Boundaries determine the legal codes and tax systems under which people live, and they determine the source of land titles. Security of patent was threatened each time a surveying party passed through. Now, with the controversy far behind us, the Georgia Fractions are a reminder of this unsettled era.

## NOTES

[1] The Georgia land lot survey was unique in format, but lot sizes were not standardized throughout the system. Several scales were used. In southwestern Georgia, bordering the western third of the boundary zone, land lots were 250 acres in area. The remainder of the Georgia-Florida land boundary lay within the grid of south-central Georgia which utilized 490-acre lots. See Sam B. Hilliard, "An Introduction to Land Survey Systems in the Southeast," *Georgraphical Perspectives on Southern Development,* Vol. 12 of *West Georgia College Studies in the Social Sciences,* edited by John C. Upchurch and David C. Weaver (Carrollton, Georgia, 1973), pp. 3-5.

[2] The first documented use of the term "Georgia Fractions" discovered was in 1880, although it seems likely that it was already a familiar term. LeRoy B. Ball, U.S. Surveyor General, Tallahassee, Florida, to J.A. Williamson, Commissioner, General Land Office, Washington City, Sept. 27, 1880. Archives of Bureau of State Lands, State of Florida, Tallahassee.

[3] There are brief and not entirely accurate references to the boundary dispute in standard histories of the two states. A slightly longer treatment is given in: Amanda Johnson, *Georgia as Colony and State* (Atlanta, 1938), pp. 381-384. Even this lucid coverage omits important steps in the development of the boundary as do two published reports dealing specifically with the dispute: S.G. McLendon, *History of Georgia-Florida Boundary Line* (Atlanta, 1923), pp. 5-18; and Fred Cubberly, "Florida Against Georgia: A story of the Boundary Dispute," *Florida Historical Quarterly,* Vol. 3, Part 2 (October 1924), pp. 20-28. The sequence of events was drawn chiefly from archival materials such as survey plats and public documents, many of the latter comprising reports, resolutions, and correspondence relating to the boundary surveys and the issues surrounding them.

[4] Article III of the Treaty of Friendship, Limits, and Navigation, signed at San Lorenzo el Real, October 27, 1795. Hunter Miller (ed.), *Treaties and Other International Acts of the United States of America,* Vol. 2 (Washington, 1931), pp. 320-321.

[5] Andrew Ellicott, *The Journal of Andrew Ellicott* (Philadelphia, 1803; facsimile edition, Chicago, 1962), p. 279. Ellicott's Mound is often referred to as "Mound B," for it was the second of two observatory mounds established by the Ellicott-Minor party on the St. Marys, "Mound A" having been erected on the inner edge of the great southern bend of the river.

[6] A later survey (J.R. Butts, 1854) and map of Georgia (J.R. Butts, 1859) indicated that the point identified as being in "mid-channel" was actually located on a "pine island" in the swamp.

[7] Ellicott, Appendix, p. 140.

[8] Resolution No. 163 of the Senate and House of Representatives of the State of Georgia, 19th December, 1816. *Georgia Statues 1810-1819,* p. 1168.

[9] Generals Thompson, Floyd, and Blackshear to Governor Rabun, February 20, 1819. Archives, State of Georgia, Atlanta.

[10] John C. Calhoun, Secretary of War, to Governor Rabun, March 12, 1819. Archives, State of Georgia, Atlanta.

[11] Governor Rabun to the Georgia Senate, November 3, 1819. McLendon, p. 12.

[12] William Greene to Governor Rabun, October 4, 1819. Archives, State of Georgia, Atlanta.

[13] See William Phillips, *Map of the Boundary Line of Georgia and Florida* (Atlanta, 1923, Archives, State of Georgia, Atlanta. The Green line is identified as the "Old Florida Boundary inaccurately run." It is likely that he did not run his line eastward of the 16th District of Irwin.

[14] Daniel Sturges, Surveyor General of Georgia, to Governor Clark, March 6, 1820. Archives, State of Georgia, Atlanta.

[15] Governor Clark to the Georgia Legislature, November 7, 1820. McLendon, pp. 14-15.

[16] Field notes of John A. Henderson, Surveyor, accepted December, 1879. *Field Notes,* Vol. 234, Bureau of State Lands, State of Florida (Tallahassee, n.d.) pp. 253-254.

[17] George Graham, Commissioner, General Land Office to Robert Butler, U.S. Surveyor-General for Florida, December 20, 1824. Archives of Bureau of State Lands, State of Florida, Tallahassee.

[18] Robert Butler, U.S. Surveyor General for Florida, to George Graham, Commissioner, General Land Office, February 12, 1825. Archives of Bureau of State Lands, State of Florida, Tallahassee.

[19] Not only were lands sold in violation of policy but records were unclear from the beginning. George Graham, Commissioner, General Land Office to Richard K. Call, Receiver, Tallahassee, Florida, April 14, 1826. Clarence C. Carter (ed.), *The Territorial Papers of the United States,* 26 vols. (Washington, 1934-1962), Vol. XXIII: *The Territory of Florida, 1824-1828,* pp. 519-520.

[20] 20th Congress, 2nd Session, *House Doc. No. 140,* March 3, 1829, p. 43.

[21] *Ibid.,* p. 26.

[22] *Ibid.,* p. 33.

[23] John McBride to George M. Troup, Governor of Georgia, May 30, 1827. Archives, State of Georgia, Atlanta.

[24] *House Doc. No. 140,* p. 41.

[25] A report of the Committee of the Judiciary of the House of Representatives, March 21, 1828, *House Doc. No. 140,* p. 74.

[26] 21st Congress, 2nd Session, *Senate Doc. No. 28,* January 11, 1831, p. 3.

[27] The report of Crawford and Couper appears verbatim in the Annual Message of the Governor of the State of Georgia to the General Assembly in the year 1831. 23rd Congress, 1st Session, *House Doc. No. 152.* March 6, 1834, pp. 1-11.

[28] Thomas R.R. Cobb, *A Digest of the Statute Laws of the State of Georgia in Force Prior to the Session of the General Assembly of 1851,* (Athens, Georgia: 1851), p. 152.

[29] After a particularly bitter interchange, the Florida Governor expressed his regrets "that an amicable settlement seems to be impossible." Thomas Brown, Governor of Florida, to George W. Towns, Governor of Georgia, June 1, 1850. Archives, State of Georgia, Atlanta.

[30] J.R. Butts, *Map of the State of Georgia,* 1859.

[31] James E. Broome, Governor of Florida, to Hershel V. Johnson, Governor of Georgia, September 28, 1854. Archives, State of Georgia, Atlanta.

[32] Governor's Message. *Journal of the Senate of the State of Georgia, 1860.* p. 27.

[33] Gustavus J. Orr and Benjamin T. Whitner, Jr., to Joseph E. Brown, Governor of Georgia, November 28, 1859. Archives, State of Georgia, Atlanta. The line being run to Ellicott's Mound rather than the 1.4 miles north of the mound as established by the original surveyors resulted in Georgia acquiring over 70,000 additional acres of land from Florida.

[34] Field Note Book 254A, G.J. Orr and B.F. Whitner Survey of Georgia-Florida Boundary Line, 1859. On file in Florida Department of Natural Resources, Land Records Division, Tallahassee.

[35] Governor's Message. *Journal of the Senate of the State of Georgia, 1860,* p. 27.

[36] Charles J. Jenkins, Governor of Georgia, to David Walker, Governor of Florida, April 23, 1866. Archives, State of Georgia, Atlanta.

[37] W.W. Curtis, Acting Commissioner, General Land Office, to J.W. Gilbert, U.S. Surveyor General for Florida, Nov. 26, 1873. Archives of Bureau of State Lands, State of Florida, Tallahassee.

[38] U.J. Baxter, Acting Commissioner, General Land Office, to James M. Smith, Governor of Georgia, June 3, 1876. Archives, State of Georgia, Atlanta.

[39] LeRoy D. Ball, U.S. Surveyor General for Florida, to S.S. Burdett, Commissioner, General Land Office, June 15, 1875. Archives of Bureau of State Lands, State of Florida, Tallahassee.

[40] LeRoy D. Ball, U.S. Surveyor General of Florida, to J.A. Williamson, Commissioner, General Land Office, May 9, 1877. Archives of Bureau of State Lands, State of Florida, Tallahassee.

[41] J.A. Williamson, Commissioner, General Land Office, to LeRoy D. Ball, U.S. Surveyor General for Florida, October 19, 1876. Archives of Bureau of State Lands, State of Florida, Tallahassee.

[42] M. Martin, U.S. Surveyor General for Florida, to N.C. McFarland, Commissioner, General Land Office, June 5, 1883. Archives of Bureau of State Lands, State of Florida, Tallahassee.

# THE DECLINE OF SMOKEHOUSES IN GRAINGER COUNTY, TENNESSEE

By John B. Rehder, John Morgan, and Joy L. Medford

The traditional way of life is changing in rural upper East Tennessee, an area recognized as a living museum of folk culture and architecture in the Upland South. The area's economy has shifted recently from semi-subsistence agriculture to a mixed economy in which manufacturing and part-time farming are major components.[1] The transition to a more industrial economy has had a profound impact on the rural landscape of the region.[2] Many of the structures traditionally found on the farms of the area have been abandoned, destroyed or subjected to functional conversion. For example, smokehouses, small but important outbuildings in upper East Tennessee since the initial settlement of the area, are vanishing from the landscape, and many of the extant structures are relicts. This paper examines the character of smokehouses in Grainger County, Tennessee, and offers reasons for their decline.

The need for the study of outbuildings has been stressed by several students of the cultural landscape.[3] Peter O. Wacker, for example, stated that ". . . outbuildings are important components of any cultural landscape and, unfortunately, have all too often been slighted by scholars."[4] Although smokehouses have been examined in several areas of the United States, detailed field studies have not been undertaken previously in upper East Tennessee.[5] Because many of the smokehouses of the area are relicts disappearing from the landscape, the opportunity to make a comprehensive study of them is rapidly passing. The value of studying relict features has been emphasized by H.C. Prince:[6]

> Relict features, however defined, may be studied for the contribution they make to the present landscape; as such, they are the concern of all geographers . . . In the study of the geography of the present time relict features have a special significance because they indicate the nature, extent and rate of changes currently taking place.

Grainger County was chosen as the area of this study because data on smokehouses had been gathered as part of an historic building survey conducted in the county for the Tennessee Historical Commission. All passable roads of the county were travelled. Characteristics of each log smokehouse and many frame smokehouses were recorded. Interviews with numerous residents of the county produced valuable information on the role and status of smokehouses in the county.

Grainger County is a rural county located in upper East Tennessee in the Ridge and Valley physiographic province (Figure 1). The county is characterized by a strongly rolling to steeply sloping surface. Relief

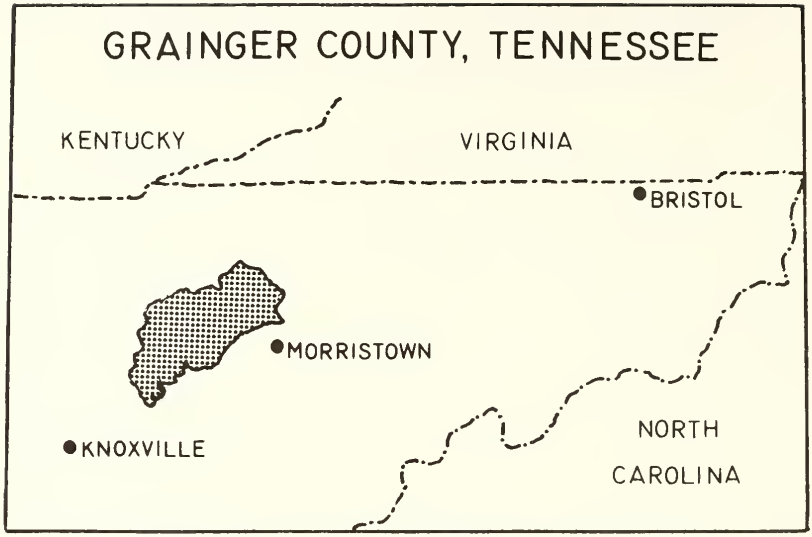



Figure 1. Location of Grainger County, Tennessee.

is dominated by Clinch Mountain, which rises to an elevation of 2,500 feet. Tributaries of the Clinch and Holston rivers form the drainage network of the county.

Grainger County was officially established on April 22, 1796, but the first white settlement of the area began about 1785, along the valley south of Clinch Mountain. Most of the early settlers came from the bordering counties and states to the north and east—primarily from Virginia and North Carolina.[7]

Agriculture maintained a predominant position in the economy of rural upper East Tennessee until the middle of the twentieth century, but has declined greatly since World War II.[8] At present, the agriculture of the area is characterized by small farms, part-time farming, and the importance of tobacco, dairying, and livestock farming.[9]

In 1938 Robert M. Glendinning and E.N. Torbert characterized Grainger County as an agricultural area in which the great majority of the population was tied directly to the land.[10] They viewed the county as a "poor" one with ". . . too many farm families in relation to the ability of the land to support them."[11] Whereas the population of Grainger County is slightly more than in 1940, the percentage of families tied directly to the land has diminished greatly. For example, the percentage of the labor force employed in agriculture decreased from 77.5 percent in 1940 to about 14 percent in 1970.[12] Also, the percentage of part-time farmers in the county increased from 16 percent in 1944 to 51 percent in 1969.[13] During the five-year period 1964 to 1969, the percentage of part-time farmers jumped from 33 to 51.[14]

Nearly all of the smokehouses of Grainger County correspond to the type of outbuilding identified by Glassie throughout Appalachia:[15]

> It has a rectangular floor plan, consistent with German and Scotch-Irish traditions, a regular double pitch roof, and a door in one gable end. . . Although not always present, its most distinguishing feature is a projecting roof, constructed on the cantilever principle typical of Pennsylvania German construction.

The great majority of the smokehouses of Grainger County are frame structures, but 26 log smokehouses were located (Figures 2 and 3). The log smokehouses average about 12 x 14 feet, whereas most of the frame structures are slightly smaller. The smallest of the log smokehouses measures 7'10" and 10'3", and the largest log structure is square with dimensions of 16'9". Nine of the log smokehouses are square. Height to the eaves of the log structures averages about 8 feet with a range of 6 to 12 feet. The smallest frame smokehouse is 8 x 8 feet and the largest is 15 x 18 feet.

The log smokehouses of Grainger County were carefully crafted from timbers five to 16 inches wide. Nineteen smokehouses (73%) are joined by half-dovetail corner notches, six (23%) are constructed with "V" notches, and one building is square notched.[16] Most of the structures are constructed of yellow poplar timbers, though pine, oak, and chestnut are found in several of the outbuildings. Timbers in all but one of the smokehouses are hand-hewn. Most of the frame smokehouses are sided with vertical boards, but some structures are weatherboarded.

Most of the smokehouses have metal roofs, but the original roofs of nearly all of the log smokehouses and many of the frame structures were made of wooden boards or shingles. Twenty-four (92%) of the log smokehouses have cantilevers and the others may have had them in the past. The cantilevered roof projections of the log smokehouses range from one to five feet with the average cantilever length being nearly three feet. The cantilevers of the frame smokehouses are shorter than those of the log smokehouses and some of the frame smokehouses do not have cantilevers. On a few of the smokehouses, poles extend between the cantilevers; hogs were hung from the poles to be "gutted." Most smokehouses rest partially or entirely on low corner stones, but a few of the log structures are supported solely by log sills (usually oak) on the ground. Sometimes the corner stones were placed under the lower side of the structure and thus serve as a means of levelling it.

Each smokehouse has a front door in the cantilevered gable end. The front door is the only fenestration present in the log smokehouses, but some of the frame smokehouses have side or rear windows. Fifteen (58%) of the log smokehouses have earthen floors and the other eleven (42%) have plank floors. Almost all of the frame smokehouses have plank floors.

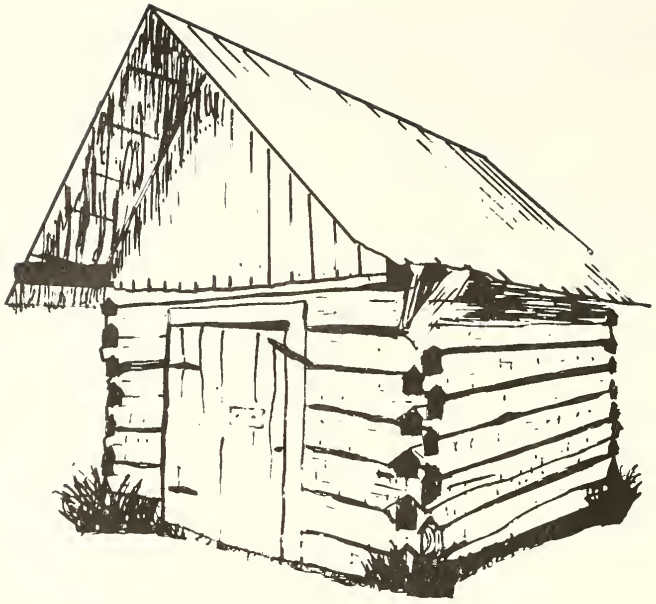


Figure 2. Cantilevered log smokehouse with "V" corner notches.

Figure 3. Frame smokehouse with vertical siding.

The smokehouses in the Upland South functioned not only as a facility for smoking slaughtered pork but also as a structure in which meat was salt or sugar-cured and subsequently stored prior to its consumption.[17] The most common method of processing pork in Grainger County was salt-curing, and in several areas of the county, hickory-smoking was very popular. Sugar-curing, common in some areas of the South, was seldom practiced in Grainger County. Hogs were usually killed between November 15 and January 1 each year. The fresh meat was usually salt-cured for six to eight weeks, depending upon the size of the hog. Salt-curing was carried out on a bench or in a salt box, where the meat was completely covered with a salt preparation. Smokehouses had one to three benches along the interior walls of the structure. The benches were usually two to three feet wide and three-and-a-half to four-and-a-half feet high. Meat benches in the log smokehouses often were made from wide yellow poplar boards, wedged between the logs of the walls for support. Most salt boxes were made of sawn boards, but early log smokehouses often contained "troughs" made from large hollowed-out poplar logs. Two of the log smokehouses contain such troughs. The salt boxes usually measure about two-and-a-half feet wide, three to five feet long, and two-and-a-half feet deep. Covered salt boxes protected the curing meat from rodents and insects.

After the meat was cured, it was hung up on poles which usually ran perpendicular to the length of the smokehouse at a height of about five-and-a-half to six-and-a-half feet above the floor of the structure. Three of the log smokehouses have two tiers of poles, whereas all the others have one tier of poles. After the meat was salt-cured, it could be smoked if desired. Smoking was accomplished by slowly burning hickory chips or sticks, and even corncobs, under the hanging meat for about one week.

Swine production had become an important activity in East Tennessee by the late 1700s and hogs remained the primary source of meat for the rural people of the area until recently.[18] Smokehouses probably have been common landscape features for as long as swine production has been significant in the area.

Although it is not possible to precisely determine the past number and distribution of smokehouses in Grainger County, elderly informants indicate that nearly all the farms in the county had smokehouses at the beginning of this century. Most of the smokehouses in existence at the turn of the century were log structures, but the great majority of those built during this century have been frame structures.[19] Retired farmer W.G. Hipsher stated that as late as 1910, nearly all the smokehouses in the Thorn Hill community were log structures. He did not recall, however, a log smokehouse built since that time.[20] Although construction dates for most log smokehouses were estimated, one of the structures was traced to at least 1840. The most recently-constructed extant log structure was built in 1918. The number of log smokehouses probably began to

diminish shortly after the turn of this century, but many log structures remained on the landscape during the 1950s.

Frame smokehouses could be found adjacent to a great majority of the dwellings of the county as late as 1960, but few smokehouses have been built since that time. Many smokehouses disappeared during the last two decades and at present perhaps no more than 40 percent of the open-country homesteads have smokehouses. Today, only a small number of these structures are used as smokehouses.

The decline in the total number of smokehouses and in the number of functioning units is related to a decrease in the percentage of families home-curing pork. Interviews with numerous residents of the county indicate that only a small percentage of families now kill hogs and cure pork, whereas the great majority of families perserved pork in a smokehouse twenty years ago. Buddy Brantley, operator of a custom hog-slaughtering business in Grainger County for 23 years, offered the following observation on the decline in home-curing of pork:[21]

> When I started killing hogs for people back in the fifties, 95 percent of the families cured their own pork in smokehouses. Now I don't think ten percent of the families cure their own pork.

Evidence of the magnitude of the decline in the number of hogs killed is found in hog production figures for Grainger County. From 1925 to 1959, the number of hogs raised in Grainger County did not vary greatly. From 1959 to 1964, however, the number of swine raised in the county declined by 54 percent, from 5,703 to 2,626. During the same period, the number of farms raising hogs declined by 42 percent. From 1959 to 1974, the number of farms raising hogs declined by 74 percent, from 1,137 to 295.[22]

Numerous reasons can be cited for the decline in the number of families killing hogs and home-curing pork, but perhaps the most important factor was the increase in the percentage of the labor force holding non-farm jobs. The purchasing power resulting from non-farm employment allowed families to choose not to cure pork at home.[23] Many non-farm workers state that their jobs do not allow enough time for raising and killing hogs and curing pork. Others claim they can purchase pork cheaper in grocery stores, especially if they do not raise corn for feed. Some rural non-farm residents claim they do not have the facilities or know-how to cure pork at home. Others, especially younger persons, indicate a preference for meat that has not been salt-cured. Many elderly persons are unable to raise and slaughter hogs, and finding neighbors or relatives to help with the hog killing is difficult. In addition, some residents have been advised by their physicians to refrain from eating pork.

Another factor related to the decline in home-curing of pork was a shift to the preservation of beef, and to a lesser degree, pork, in home

freezers. Twenty years ago, little beef was preserved by Grainger countians because few families had freezers. By the middle, and especially the late, 1960s, however, many families had purchased freezers. The increase in the amount of beef slaughtered has been of such a magnitude that, at present, the amount of beef preserved in freezers may be greater than the volume of home-cured pork.[24] A relatively small amount of slaughtered pork is preserved in home freezers in lieu of salt-curing.[25] Many families, however, freeze only certain pork items, but continue to salt-cure most parts of the hog.

Some smokehouses have been converted into storage facilities, but in many cases they have been abandoned or destroyed. Log smokehouses have not been as adaptable to functional conversions as frame smokehouses. Smokehouses covered with vertical boards have not been converted to substitute functions as often as weatherboarded structures, which are usually sturdier.

Although there is a recent trend to preserve and restore log dwellings in Grainger County, efforts seldom have been made to repair deteriorating log smokehouses.[26] They have frequently been destroyed rather than repaired. Last year, for example, an elderly couple dismantled their log smokehouse and burned it as firewood.

The recently-concluded survey in Grainger County revealed that smokehouses and other outbuildings, especially log structures, are rapidly disappearing from the landscape of upper East Tennessee.[27] We believe detailed studies are urgently needed throughout the Upland South to record the character of outbuildings and to determine to what extent and why they are vanishing. We plan to examine outbuildings as part of a large study in several other East Tennessee counties in the near future.

## NOTES

[1] Billy J. Trevena and Lynn J. Garrett, "Industrialization and Part-Time Farming in Upper East Tennessee," *Tennessee Farm and Home Science,* Progress Report 100 (October, November, December, 1976), pp. 19-21; and Edward Theodore Freels, Jr., "A Geographic Study of a Cross Section of the Great Valley of East Tennessee," unpublished Ph.D. dissertation, University of Tennessee, 1970, pp. 111-157. Numerous scholars have examined tradition and change in Appalachia in Thomas R. Ford (editor), *The Southern Appalachian Region* (Lexington: University of Kentucky Press, 1967); and Bruce Ergood and Bruce E. Kuhre (editors), *Appalachia: Social Context Past and Present* (Dubuque, Iowa: Kendall-Hunt Publishing Company, 1976).

[2] Freels, Jr., "A Geographic Study of a Cross Section of the Great Valley," p. 111.

[3] See, for example, Fred B. Kniffen, "Neglected Chapters of Pioneer Life," *Pioneer America Society Newsletter* 2 (July, 1969), pp. 1-4.

[4] Peter O. Wacker, "Cultural and Commercial Regional Associations of Traditional Smokehouses in New Jersey," *Pioneer America,* Vol. 3, (July, 1971), p. 25.

[5] *Ibid.,* pp. 25-34; Amos Long, Jr., *The Pennsylvania German Family Farm* (Breinigsville, Pennsylvania: The Pennsylvania German Society, 1972), pp.

179-196, and "Smokehouses in the Lebanon Valley," *Pennsylvania Folklife,* Vol. 13 (Fall, 1962), pp. 26-30; Terry G. Jordan, *Texas Log Buildings* (Austin: University of Texas Press, 1978), pp. 177-179, and "Log Construction in the East Cross Timbers of Texas," *Proceedings,* Pioneer America Society, Vol. 2 (1973), pp. 119-122; and Henry Glassie, "The Smaller Outbuildings of the Southern Mountains," *Mountain Life and Work,* Vol. 40 (1964), pp. 21-25.

[6] H.C. Prince, "Historical Geography," Section Report VI, in J. Wreford Watson, editor, 20th International Geographic Congress *Proceedings,* 1967, pp. 165-167.

[7] W.E. Holt (editor), *Grainger County, 1796-1976* (Rutledge, Tennessee: Grainger County Bicentennial Committee, 1976) pp. 4-8; and Goodspeed's *History of Tennessee* (Nashville: Goodspeed Publishing Co., 1887), pp. 853-856.

[8] Freels, Jr., "A Geographic Study of a Cross Section of the Great Valley," p. 111.

[9] *Ibid.,* p. 113.

[10] Robert M. Glendinning and E.N. Torbert, "Agricultural Problems in Grainger County, Tennessee," *Economic Geography,* Vol. 14 (1938), pp. 159-166.

[11] *Ibid.,* p. 166.

[12] United States Bureau of Census, *County and City Data Book, 1949* (Washington, D.C.: United States Government Printing Office, 1952); and University of Tennessee Center for Business and Economic Research, *Tennessee Statistical Abstract 1977* (Knoxville, 1977).

[13] Trevena and Garrett, "Industrialization and Part-Time Farming," p. 20.

[14] *Ibid.*

[15] Glassie, "The Smaller Outbuildings of the Southern Mountains," p. 23.

[16] For a discussion of notching techniques, see Fred Kniffen, "On Corner-Timbering," *Pioneer America,* Vol. 1 (1969), pp. 1-8; and Fred Kniffen and Henry Glassie, "Building in Wood in the Eastern United States: A Time-Place Perspective," *Geographical Review,* Vol. 56 (1966), pp. 48-57. In the same article, pp. 58-65, Kniffen and Glassie discuss the distribution and development of corner-timbering in the Eastern United States.

[17] Hog slaughtering in the Southern mountains is discussed and illustrated in Eliot Wigginton (editor), *The Foxfire Book* (Garden City, New York: Anchor Press-Doubleday, 1972), pp. 189-198.

[18] William Flinn Rogers, "Life in East Tennessee Near the End of the Eighteenth Century," East Tennessee Historical Society *Publications,* No. 1 (1929), p. 35. For a study of pork production in the South before the Civil War, see Sam B. Hilliard, "Pork in the Ante-Bellum South: The Geography of Self-Sufficiency," *Annals,* Association of American Geographers, Vol. 59 (1969), pp. 461-480.

[19] The tradition of log construction in the Upland South has been recognized by several students of the cultural landscape. See, for example, Fred Kniffen, "Folk Housing: Key to Diffusion," *Annals,* Association of American Geographers, Vol. 55 (1965), pp. 549-577; and Henry Glassie, "The Appalachian Log Cabin," *Mountain Life and Work,* Vol. 39 (1963), pp. 5-15, and "The Old Barns of Appalachia," *Mountain Life and Work,* Vol. 40 (1965), pp. 21-30.

[20] Interview with W.G. Hipsher, retired farmer, Rutledge, Tennessee, December 20, 1978.

[21] Interview with Buddy Brantley, operator of B & B Packing Company, Heltonville, Tennessee, December 29, 1978.

[22] United States Bureau of the Census, *United States Census of Agriculture* (Washington, D.C.: United States Government Printing Office), 1925-1974.

[23] Median family income in Grainger County rose from 2,500 dollars in 1960 to 5,100 dollars in 1970. Frank O. Leuthold, "Commuting Patterns of the Tennessee Population," *Tennessee Farm and Home Science,* Progress Report 92 (October, November, December, 1974), pp. 8-9.

[24] For a discussion of how beef has replaced pork as the preferred American meat, see Marvin Harris and Eric B. Ross, "How Beef Became King," *Psychology Today,* Vol. 12, No. 5 (October, 1978), pp. 88-94.

[25] Brantley, interview, states that at least 95 percent of his customers who kill hogs continue to salt-cure most of their pork.

[26] An exception is the recent restoration of one of the log smokehouses in Grainger County.

[27] Log outbuildings have vanished from the landscape in Grainger County at a greater rate than log dwellings. For example, we located more than 200 log dwellings, but only 26 log smokehouses.

# PROLEGOMENON TO FUTURE RESEARCH ON BLACK AGRICULTURE IN THE SOUTH

By J. Brady Foust and Ingolf Vogeler

This prolegomenous essay suggests critical concerns about describing and explaining black farmland ownership trends in the southern United States. These questions provide the intellectual exercises necessary for a comprehensive understanding of black agriculture which is needed for meaningful public policies.

The decline of black agriculture was treated in a rather obscure fashion until the Civil Rights movement and the rise of black awareness in the 1960s. Recent studies on the topic have pointed to the substantial decrease in black owned and operated farms. The trends indicate massive and rapid decline throughout the South in the last fifty years.[1] The demise of black farm families is especially noteworthy today because most southern states have fewer than 3,000 such operators left. If current trends continue, black farm operators will vanish by the 1980s.[2] This decline is shown for the South for three land tenure classes for the periods 1954-64 and 1964-74 in Table 1.

## PROBLEMS OF DESCRIPTION

Although the study of black farming is justified by its distinctive human-environmental relationships and regional concentrations, the topic must also be placed in a larger frame of reference to provide a truly comprehensive description. Several major questions must be considered.

First, the decline of black farm operators needs to be compared to white farm operators. Are black farmers declining at a faster rate relative to white farmers in the South? White farm decline is given in Table 2 and should be compared with Table 1. Black land tenure of all types declined more rapidly than whites, but both groups decreased from 1954 to 1974. How much of the decline in black farming is the result of the demise of agriculture in general, and how much can be attributed to conditions that affect only black farmers?

Second, farm size is critical in describing agricultural decline. Throughout the United States, larger farms are increasing in number relative to all other farms.[3] Table 3 illustrates the average size of white and black farm operations for three different census years. Although the average size of black farms in the South almost doubled between 1964 and 1974, the average black farm remained under 100 acres and well below the average size of white farms in 1954. In what specific size categories are black and white farm operators in the South? Which size by race are declining rapidly? Which sizes by race are increasing or remaining stable? These questions are impossible to answer given the nature of the published

Table 1

BLACK LAND TENURE IN SOUTHERN STATES

| | Change: 1954-1964 | | | Change: 1964-1974 | | |
|---|---|---|---|---|---|---|
| | Tenure Class | | | Tenure Class | | |
| State | Full-Owners | Part-Owners | Tenants | Full-Owners | Part-Owners | Tenants |
| VA | -60.96% | -31.28% | -45.30% | -49.21% | -59.64% | -89.62% |
| NC | -45.33% | -33.53% | -61.83% | -82.79% | -68.89% | -91.97% |
| SC | -49.71% | -49.00% | -73.82% | -59.86% | -69.58% | -93.79% |
| GA | -50.87% | -41.88% | -81.54% | -58.58% | -60.27% | -92.13% |
| AL | -42.40% | -37.52% | -63.79% | -63.64% | -79.95% | -94.21% |
| FL | -51.04% | -34.06% | -67.62% | -65.35% | -97.62% | -75.97% |
| MS | -31.65% | -34.48% | -74.63% | -56.02% | -76.23% | -96.41% |
| LA | -45.85% | -41.34% | -74.97% | -67.69% | -70.99% | -92.45% |
| TX | -45.90% | -53.82% | -78.97% | -67.47% | -73.62% | -83.77% |
| TN | -41.63% | -31.38% | -55.39% | -43.91% | -73.54% | -94.87% |
| KY | -32.58% | -20.61% | -56.50% | -35.22% | -72.88% | -91.17% |
| AR | -53.77% | -43.36% | -82.27% | -70.59% | -96.68% | -93.12% |
| "South" | -45.97% | -37.34% | -68.05% | -60.02% | -75.01% | -90.79% |

*Source: United States Census of Agriculture.*

data in the *Census of Agriculture* because data by race and farm size are not given in enough detail to make precise comparisons. Officials at the Bureau of the Census have assured us that such information can be cross-tabulated from future census computer tapes.

Third, farm size and type of farming are strongly correlated. Labor-intensive farms, such as dairy, truck, and tobacco farms, are considerably smaller than capital-intensive farms, yet may retain their viability. Are certain types of farming associated more with black farms, which are commonly smaller in size? Has black agriculture declined less in areas that practice labor-intensive, small-scale farming than in those in which capital-intensive, large-scale operations predominate? Average farm size for each race, as indicated in Table 3, was lowest in North Carolina which might be expected given the predominance of tobacco farming in the state. The data in Tables 1 and 2, however, indicate that North Carolina had the greatest decline in black full-owner operations between 1964-74, and relatively high rates of decline for part-owner and tenant operations.

## ALTERNATIVE EXPLANATIONS

An adequate description of black farmland change must at least address the above questions. With this descriptive data base, explanations can be provided and public policies formulated. Although a wide range

Table 2

WHITE LAND TENURE IN SOUTHERN STATES

| | Change: 1954-1964 | | | Change: 1964-1974 | | |
|---|---|---|---|---|---|---|
| | Tenure Class | | | Tenure Class | | |
| State | Full-Owners | Part-Owners | Tenants | Full-Owners | Part-Owners | Tenants |
| VA | -42.93% | - 5.97% | -52.72% | -22.48% | -22.60% | -47.25% |
| NC | -45.32% | - 4.93% | -55.91% | -10.12% | -32.22% | -57.68% |
| SC | -47.32% | -14.08% | -68.98% | -31.01% | -22.82% | -53.53% |
| GA | -37.63% | -14.48% | -71.62% | -25.72% | -18.84% | -51.98% |
| AL | -39.65% | -24.73% | -71.45% | -17.80% | -28.03% | -63.24% |
| FL | -58.25% | - 7.93% | -31.95% | -15.22% | -11.90% | - 1.42% |
| MS | -30.33% | -14.30% | -72.80% | -35.48% | -28.11% | -55.24% |
| LA | -16.51% | - 9.01% | -58.30% | -56.25% | -24.68% | -42.78% |
| TX | -27.28% | - 3.35% | -45.84% | -66.41% | -17.49% | -55.45% |
| TN | -29.06% | -12.88% | -58.96% | -15.47% | -34.82% | -63.87% |
| KY | -32.90% | -10.59% | -40.55% | - 9.73% | -30.89% | -60.80% |
| AR | -33.77% | -12.02% | -62.95% | -28.44% | -25.15% | -48.94% |
| "South" | -36.74% | -11.18% | -57.66% | -22.76% | -24.79% | -56.18% |

*Source: United States Census of Agriculture.*

of alternative explanations exist to account for the demise of black agriculture, only one predominates in the literature, and it has not been adequately explored given the empirical questions we have posed.

The conservative explanation, the most common, blames individuals for their failure to adapt to trends in agriculture in the United States. For example, Fisher mentions many characteristic ones. "He (the Black Farmer) commonly has a less advanced attitude towards improved methods and commercial production, and therefore does not use his land as effectively as he might. The inability of Negro farm owners to adapt is reflected also in limited commercialism and social attitudes and his own resistance have virtually excluded him from participation in the administration of the programs (soil conservation, farm loan) which vitally affect him."[4] These kinds of explanations lay the problem of black farm-

land loss at the feet of blacks themselves. The social and economic context in which these farmers exist is ignored. This conservative explanation is particularly attractive because white institutions are not held accountable for this black problem, and it allows whites to feel sorry for this "unfortunate" minority since individual traits of adaptation and intelligence can hardly be changed by society.

Table 3

AVERAGE FARM SIZE IN ALL SOUTHERN STATES
(ACRES)

| Year | White | Black |
|---|---|---|
| 1954 | 145.35 | 48.68 |
| 1964 | 282.60 | 56.60 |
| 1974 | 284.01 | 98.96 |

*Source: United States Census of Agriculture*

A liberal perspective explains the decline of black farmland as the result of racist attitudes, behavior, and institutions in the United States. Blacks are perceived as being passively impacted by white social groups and institutions around them. Very few geographers have explored this type of explanation in the case of black agriculture, but this liberal view has many implications which should be given attention because discriminatory practices within the agencies and programs of the USDA have limited the access of minority farmers to needed services and resources.

For example, minorities make up only 10.8 percent of all permanent, fulltime USDA employees, while minorities constitute 20 percent of total federal employment. Mississippi, with blacks making up 31.5 percent of its rural population, had only 5.1 percent employed by the USDA in the state in 1975. In the same year, North Carolina had only 7.2 percent black USDA employees yet the blacks accounted for 19.8 percent of its rural population. In 1975, minorities comprised only 3.2 percent of the 8,600 employees of the Agricultural Stabilization and Conservation Service and only 7.2 percent of the more than 17,000 Cooperative Extension Service employees. Legal action was taken as late as 1974 in Mississippi to get the first black appointed as a full county agent.[5]

Many federal policy decisions are made locally. Commodity support programs, for example, are determined at the local level through the Agricultural Stabilization and Conservation Service. Only eleven of the 9,097 ASCS county committee members in the nation were blacks in 1977, and only three blacks were included among the possible 3,857 county community members in the South. Of the 15,540 supervisors on the district boards for the Soil Conservation Service, only 2.1 percent were minorities

and, in 1976, there were only 95 minority group members of the 2,585 members of the boards of directors of Rural Electric Cooperatives in sixteen southern states. Farmers' Home Administration county committees included only 11.2 percent minorities in 1975, but the FmHA has made significant strides toward greater minority representation recently.[6]

The bulk of agricultural innovation and expertise in the United States originates in Land Grant Colleges. White land grant schools were created by the first Morrill Act in 1862; those for blacks were not formed until the second Morrill Act of 1890 and none of the seventeen black schools offered college-level courses until 1917. The 1862 and 1890 colleges have remained unequal even after the passage of the 1964 Civil Rights Act. For example, white land grant colleges received eleven times more funding than black schools in 1968. The federal government in 1968 gave $5.8 million to Clemson University and only $490,000 to predominately black South Carolina State, an 1890 school. At this time, Clemson had only about three times as many students as South Carolina State. Mississippi State (1862 school), with only four and one-half times as many students as Alcorn A&M (1890 school), received fourteen times more funding in the same year. Federal and state aid in 1968 amounted to almost $2,300 per student in the white land grant schools, but was less than $1,365 per student in the predominately black 1890 institutions. The discrimination against black colleges has limited the opportunities and services these schools can offer to rural black farmers and youth.[7]

Similar discrimination or lack of opportunity is apparent in the utilization of USDA programs. In the decade ending in 1976, the percentage of blacks receiving housing loans from the Farmers' Home Administration declined from 19.4 to 9.5 percent. Ineligibility accounts for much of the decline; by 1974, 50.3 percent of rural black families were too poor to qualify for the loans (up from 36.2 percent in 1969). White households too poor to qualify, however, remained about the same over the decade. Between 1966 and 1976, the percentage of FmHA farm ownership loans made to black farmers declined from 5.7 to 1.5 percent. In 1975, only 40 percent of eligible black-operated farms participated in USDA soil and water conservation programs while 59 percent of white-operated farms were enrolled.

If racism, which has denied blacks equal opportunity, is the primary reason for the demise of black farming, we might assume that it would be most apparent in a "Deep South" state such as Mississippi. That state, however, registered similar declines in number of farming operations for both races from 1954 to 1964 and comparably low rates of decline between 1964 and 1974. Very careful research is required if the liberal hypothesis of individual racism is to be documented. This hypothesis explains discrimination as common human bigotry which can be overcome by the education of whites and federal and state civil rights and equal opportunity legislation.

The radical paradigm, the least known and developed, views discrimination and the demise of black farm families as endemic to the present economic system. Capitalism permits greater profits to be extracted from black farm operators and pits white and black farmers against each other, thus weakening white farmers as well. Without adequately sized farms, both races are forced out of farming to provide cheap labor to urban employers and especially in the South and Southwest, to provide inexpensive land and labor to remaining Southern agriculturalists operating on a larger-scale.[8] The two great labor migrations to Northern industrial centers, blacks from throughout the South and whites from the Appalachian highlands, were related to farms which were too small to provide an adequate living. Radicals do not believe generally that capitalism is the originator of racism, but rather that it perpetuates and intensifies racism because of the valuable function it serves. Similarily, the demise of small family farms provides a labor force that can be easily exploited.

Black farm families are impacted as both a marginal race and a marginal occupation. Black farmers experience, along with most other farmers (especially small-scale operators) in the United States, the marginalization of their lives in an urban, industrial market exchange economy; but they experience it to a greater degree.

Farm incomes, regardless of race, are substantially below those in commerce and industry.[9] The greater the exploitation of farm labor, the higher the profits for agricultural input (fertilizers, machinery, bank loans) and output (grain merchants, livestock markets) industries, and the lower the food costs to urban consumers. Thus commercial interests and consumer groups have a vested interest in maintaining the exploitation of farm labor—both black and white.

Radical analysts, who consider not only class and race antagonisms but also consequent regional and urban/rural inequalities, employ the concept of regional colonialism or regional underdevelopment.[10] Gorz, in his 1971 article, suggests that "the geographical concentration of the process of capitalist accumulation has necessarily gone hand-in-hand with the relative—or even absolute—impoverishment of other regions.[11] These latter regions have been used by industrial and financial centers (higher-order urban clusters) as reservoirs of labor or of primary and agricultural resources. Like the colonies of the great European empires, the "peripheral" regions have provided the metropoles with their savings, their labor-power, their men, without having a right to the local reinvestment of the capital accumulated through their activity."

## CONCLUSION

Existing data on black farmland trends can be analyzed from three alternative frameworks. Most of the existing literature on the subject is

an incomplete description of the problem and utilizes the conservative viewpoint, emphasizing individual decision-making and environmental causation. In fact, most general studies of Southern agriculture have concentrated on the environmental base despite the availability of alternative views.[12] Agriculture is a social phenomenon; the physical base is appraised and utilized within a particular political, social, and economic system. It is this system which determines the pattern of agriculture in a place. Any *explanation* of the pattern is, in fact, an analysis of the system, and both liberal and radical analyses focus on the larger dimensions of the problem. The demise of black agriculture is merely a symptom of larger societal processes which should be explored.

Geographers must choose among conservative, liberal, and radical perspectives. How can the choice be made? We should choose the approach which gives the most accurate and complete explanation. The literature on black agriculture in the South, however, suggests the conservative framework is lacking in explanatory power and that the liberal and radical viewpoints have received almost no attention but would, if applied, yield better results. Future study of the problem must explore these viewpoints if we are to understand the decline of black agriculture in the South.

## NOTES

[1] Black Economic Research Center, "Black Land Loss: The Plight of Black Ownership," *Southen Exposure,* Vol. 2, No. 2 & 3 (Fall 1974), pp. 112-121. Eleanor Clift, "Black Land Loss: 6,000,000 Acres and Fading Fast," *Southern Exposure,* Vol. 2, No. 2 & 3 (Fall 1974), pp. 108-111.

[2] Lester M. Salamon, *Black Owned Land: Profile of a Disappearing Equity Base,* Report to the Office of Minority Business Enterprise, U.S. Department of Commerce, Duke University, Institute of Policy Sciences and Public Affairs, 1974.

[3] Robert Bildner, "Southern Farms: A Vanishing Breed," *Southern Exposure,* Vol. 2, No. 2 & 3 (Fall 1974), pp. 72-79.

[4] James S. Fisher, "Negro Farm Ownership in the South," *Annals* of the Association of American Geographers, Vol. 63, No. 4 (December 1973), pp. 478-489.

[5] United Presbyterian Church in the U.S.A., *Who Will Farm,* New York: Church and Society Program Area, United Presbyterian Church, U.S.A., 1978.

[6] William C. Payne, "The Negro Land Colleges," *The Civil Rights Digest,* Spring, 1970.

[7] *Ibid.*

[8] NACLA, *Latin America and Empire Report,* Vol. II, No. 3 (March 1977), whole issue devoted to "The Apparel Industry Moves South."

[9] Richard Peet, "Rural Inequality and Regional Planning," *Antipode,* Vol. 7, No. 3 (December 1975), pp. 10-24.

[10] Joe Persky, "Regional Colonialism and the Southern Economy," *Review of Radical Political Economy*, Vol. 4 (Fall 1972), pp. 70-79.

[11] Andre Gorz, "Colonialism, At Home and Abroad," *Liberation*, November 1971.

[12] For example see John Fraser Hart, "Cropland Concentrations in the South," *Annals* of the Association of American Geographers, Vol. 68, No. 4 (December 1978).

V. 19

WEST GEORGIA COLLEGE
STUDIES IN THE SOCIAL SCIENCES

**Volume XIX** **June, 1980**

# SAPELO PAPERS: RESEARCHES IN THE HISTORY AND PREHISTORY OF SAPELO ISLAND, GEORGIA

RECEIVED
Library
CARROLLTON, GEORGIA

Published by
WEST GEORGIA COLLEGE
A Division of the University System of Georgia
CARROLLTON, GEORGIA

WEST GEORGIA COLLEGE
STUDIES IN THE SOCIAL SCIENCES

Volume XIX June, 1980

# SAPELO PAPERS: RESEARCHES IN THE HISTORY AND PREHISTORY OF SAPELO ISLAND, GEORGIA

DANIEL P. JUENGST
*Volume Editor*

## CONTENTS

| | | Page |
|---|---|---|
| Contributors | | iii |
| Foreword | *John C. Upchurch* | iv |
| Preface | *Lewis H. Larson, Jr.* | v |
| The Occupation of Sapelo Island Since 1733 | *Patricia D. O'Grady* | 1 |
| Spalding's Sugar Works Site, Sapelo Island, Georgia | *Morgan R. Crook, Jr.* and *Patricia D. O'Grady* | 9 |
| The Spanish on Sapelo | *Lewis H. Larson, Jr.* | 35 |
| A Model for Barrier Island Settlement Pattern | *Alan E. McMichael* | 47 |
| A Preliminary Report on Test Excavations at the Sapelo Island Shell Ring, 1975 | *Daniel L. Simpkins* | 61 |
| Spatial Associations and Distribution of Aggregate Village Sites in a Southeastern Atlantic Coastal Area | *Morgan R. Crook, Jr.* | 77 |
| Archaeological Indications of Community Structures at the Kenan Field Site | *Morgan R. Crook, Jr.* | 89 |
| Technological Analysis of Some Sapelo Island Pottery: Social and/or Functional Differences | *Marian Saffer* | 101 |
| References Cited | | 109 |

# TITLES IN PRINT

Vol. IV, 1965, *The Changing Role of Government.*

Vol. V, 1966, *Issues in the Cold War.*

Vol. VII, 1968, *Social Scientists Speak on Community Development.*

Vol. VIII, 1969, *Some Aspects of Black Culture.*

Vol. XI, 1972, *Georgia Diplomats and Nineteenth Century Trade Expansion.*

Vol. XII, 1973, *Geographic Perspectives on Southern Development.*

Vol. XIII, 1974, *American Diplomatic History: Issues and Methods.*

Price, each title, $2.00

Vol. XIV, 1975, *Political Morality, Responsiveness, and Reform in America.*

Vol. XV, 1976, *The American Revolution: The Home Front.*

Vol. XVI, 1977, *Essays on the Human Geography of the Southeastern United States.*

Vol. XVII, 1978, *Dependency Unbends: Case Studies in Inter-American Relations*

Vol. XVIII, 1979, *The Southeastern United States: Essays on the Cultural and Historical Landscape.*

Price, each title, $3.00

Copyright © 1980, West Georgia College

Printed in U.S.A.

Thomasson Printing Co., Carrollton, Georgia 30117

Price, $4.00

*West Georgia College is an Affirmative Action/Equal Opportunity Employer*

# CONTRIBUTORS

MORGAN R. CROOK, JR. received his Master's degree from West Georgia College and his Ph.D. from the University of Florida. Dr. Crook is currently a Research Associate, conducting sponsored archaeological investigations for West Georgia College.

LEWIS H. LARSON received his Ph.D. from the University of Michigan. He joined the faculty of the Department of Sociology and Anthropology at West Georgia College in 1971 where he is Professor of Anthropology. He was appointed State Archaeologist in 1972. He has served as director of the Sapelo archaeological project since its inception in 1974.

ALAN E. McMICHAEL received the B.A. degree in Anthropology from West Georgia College and is now a graduate student in Anthropology at the University of Florida. His research interests center around New World archaeology and ethnohistory. He is currently a Research Assistant at the Florida State Museum and is on the editorial staff of *The Florida Journal of Anthropology*.

PATRICIA C. O'GRADY received her B.A. from West Georgia College in 1977. She has participated in several prehistoric and historical archaeology projects in Georgia and Tennessee. Her interests are in anthropology and historical archaeology. Ms. O'Grady is currently completing her Master's thesis at Florida State University and is employed by the Southeast Archaeological Center, National Park Service in Tallahassee, Florida.

MARRIAN SAFFER holds a M.A. in anthropology from the University of Florida. Her research interests include ceramic ecology, the use of multivariate techniques with archaeological data, and problems of coastal prehistory. She is currently serving as laboratory archaeologist for the Kings Bay Testing Project in Camden County, Georgia.

DANIEL L. SIMPKINS received his B.A. degree in Anthropology from West Georgia College. He is currently a graduate student at the University of North Carolina at Chapel Hill. His interests include the archaeology of the southeastern United States and cultural ecology.

# FOREWORD

This volume continues the precedent of utilizing the services of a volume editor working under the loose supervision of a general editor, a policy begun with the 1973 issue of *Studies in the Social Sciences.* Responsibility for selecting the theme of the present volume, the essays herein included, and initial editorial refinement was that of the volume editor. The role of the general editor was limited to broad consultation with the volume editor, final editing, and liaison with the printer.

The current volume brings together significant results of a six-year-long program of archaeological survey of Sapelo Island, Georgia. Several of the papers have been published previously in other journals; and appreciation is extended to the editors of these publications for their permission to reprint the articles. Specifically, acknowledgements go to: (1) the Society for Georgia Archaeology, publishers of *Early Georgia,* for permission to reprint Daniel Simpkins' "A Preliminary Report on Test Excavations at the Sapelo Island Shell Ring, 1975"; (2) Graphmitre Ltd., publishers of *Industrial Archaeology,* for permission to reprint Morgan R. Crook and Patricia D. O'Grady's "Spalding's Sugar Works Site, Sapelo Island, Georgia"; (3) the Southeastern Archaeological Conference, publishers of *Proceedings of the Southeastern Archaeological Conference,* for permission to reprint Marian Saffer's "Technological Analysis of Some Sapelo Island Pottery: Social and/or Functional Differences," and; (4) the Florida Anthropological Society, publishers of *The Florida Anthropologist,* for permission to reprint Alan E. McMichael's "A Model for Barrier Island Settlement Pattern," and Morgan R. Crook's "Spatial Associations and Distribution of Aggregate Village Sites in a Southeastern Atlantic Coastal Area." Full bibliographic citations for reprinted papers may be found on the title page of each article.

As in the past, *Studies in the Social Sciences* is financed partially by the University System of Georgia. It is distributed gratis to libraries of state supported colleges and universities in Georgia, and to selected institutions of higher education in other southeastern states. Interested individuals or libraries may purchase copies of the 1980 issue for $4.00 each to help defray printing and mailing costs. Standing orders for the annual series are available at the current reduced rate of $3.00 Earlier issues of the *Studies* series, listed on p. ii, may be obtained for either $2.00 or $3.00, as listed.

It is with considerable pleasure that the editors submit to you this volume on Sapelo Island.

John C. Upchurch
Professor and Chairman
Department of Geography
*General Editor*

# PREFACE

By Lewis H. Larson

Beginning in the summer of 1974 West Georgia College initiated a program of archaeological survey on Sapelo Island, a barrier island on the Georgia coast in McIntosh County. The survey has continued for the past six years and has resulted in the series of papers included here. Most of these papers have been published previously in professional journals and are reprinted here through the courtesy of those journals. It is thought that the present volume will serve a useful purpose to have the results of the survey brought together and presented in a uniform format.

An archaeological survey of a barrier island on the Georgia coast was proposed for several reasons. The primary reason was to develop a much needed model that could be used by the Georgia Department of Natural Resources in the creation of the archaeological component of the State Historic Preservation Plan and in cultural resource management strategies for the coastal region. To the extent that Sapelo Island was representative of the coastal environment; was apparently occupied during the entire range of human history on the coast; had experienced minimal development in the post-plantation period; and was owned by the State of Georgia, it offered an excellent and convenient opportunity to collect the data necessary to develop a model that could be used in predicting coastal archaeology.

A second reason, and one with a more immediate purpose, was to provide information to the Game and Fish Division of the Georgia Department of Natural Resources so that the development of the island as a game management area could be planned to have a minimal effect on the cultural resources.

The survey program has focused on the identification of the archaeological resources of the island and their evaluation. It has been known for a long time that there was relatively little information, bearing on the archaeology of the island, contained in the records dealing with Sapelo. The limited documentary sources pertaining to its history, for the most part, have been accessible but are only of limited application. Therefore, most of the time and energy of the survey have been spent in the field. It was intended that little effort should be expended on large scale excavation. Rather, sites were to be located and, where it was possible and a productive endeavor, detailed maps of the site were to be made. Again, where conditions permitted, carefully controlled surface collections were to be carried out. Finally, limited excavation was to be conducted in order to characterize the sites in terms of the temporal positions, the relationships to other sites on the island and in the coastal area generally, the type of subsistence pattern, the size and configuration of the resident populations, and finally the seasonality and function of the occupation. Obviously, an area the size of Sapelo with its

complexity of occupation would require considerable time to completely survey in the manner required by the defined research goals. We have not completed the survey, but we have come a long way in formulating our areal model for coastal archaeology, and we have been able to assist in the planning on the island by providing information and guidance as the game management area development has gone forward.

The papers included here set forth the results of the survey. To date the identification of sites on the island has been completed. They range in time from late Archaic fiber tempered occupations through post-Civil War freedman's settlements and homesites. Because little of the island is now under cultivation, controlled surface collection has been possible on only a single site, Bourbon Field. The Shell Ring, the site north of the Shell Ring, Kenan Field, the ruins at Chocolate, the house ruins at High Point, and Bourbon have been carried out.

At this time, the mapping and test excavations at the Black settlement at Raccoon Bluff and the remapping and further testing at Bourbon are both major tasks that remain for the survey. But there are other large sites that also await detailed definition and record. Included are sites on Johnson Creek and Hanging Bull. In addition, an accurate record of the Spalding dock system lying partially buried in the sediments of Post Office Creek at Long Tabby, is programmed for the future.

The papers included here do not represent the complete research results of the Sapelo survey effort. In 1978 Morgan R. Crook, Jr. wrote *Mississippian Period Community Organizations on the Georgia Coast.* This study is based primarily on the analysis of the map and test excavations of Kenan Field. This major Sapelo Island site covers some 60 hectares and is characterized by 589 shell middens, two burial mounds, and appears to have one or two groupings of platform mounds. Dr. Crook's research was submitted as a doctoral dissertation, and while it is too lengthy to be included here it is available from University Microfilms.

With the exception of myself, the authors of these papers all participated in the Sapelo survey as graduate or undergraduate students at West Georgia College and the University of Florida. Dr. Crook has been a participant in the survey, not only as a graduate student, but also as a faculty member at West Georgia College.

Funding for the Sapelo survey was carried out with matching grants from the Office of the Governor; the Georgia Department of Natural Resources; and grants-in-aid from the Department of the Interior, Heritage Conservation and Recreation Service, under provisions of the National Historic Preservation Act of 1966. Deep appreciation for this funding must be expressed to the following individuals and the funding programs that they administer: George Busbee, Governor of Georgia; Joe D. Tanner, Commissioner, Georgia Department of Natural Resources; and Elizabeth A. Lyon, Georgia State Historic Preservation Officer.

I only wish it were possible to acknowledge in a manner that fully

reflects the extent to which the archaeological survey of Sapelo Island depended upon the help and guidance of C. V. Waters, Coastal Regional Supervisor for Game Management, Game and Fish Division, Georgia Department of Natural Resources and his staff. Mr. Waters and his staff were always willing and able to find solutions to the myriad problems, great and small, that are a part of any archaeological field work. Mr. Waters' knowledge of the island, his unfailing good humor, generosity with his time, and his understanding of archaeology have made, over the years, the survey possible.

The late Dr. James Wash, Director of Research Services and Mr. J. E. McWhorter, Budget Officer of West Georgia College are responsible for guiding me through a sometimes almost impenetrable fiscal thicket as we strove to develop the contracts supporting the project. I am grateful to them both.

I am equally appreciative of the valuable assistance that has been given by Mr. Robert Townley and his staff at West Georgia College plant operations.

Dr. Richard Dangle, Dean of the School of Arts and Sciences, West Georgia College has not only assisted the project in many ways, but even more importantly he has been uncommonly sympathetic to, and patient with, its objectives and problems.

# THE OCCUPATION OF SAPELO ISLAND SINCE 1733

By Patricia D. O'Grady

The sea islands of Georgia were largely uninhabited in 1686 when Jonathan Dickenson made his memorable journey from St. Mary's to Beaufort, South Carolina. Earlier Spanish attempts to possess and develop the area between St. Augustine and Charleston had met with failure. The Indians now were largely dispersed, the missions abandoned, and agricultural fields lay dormant (Lovell 1933:15).

When Georgia was established as an English Colony in 1733, most evidence of Spanish occupation had disappeared from the sea islands, and the Creek Indians considered the Georgia coast as their own. Despite continuing Spanish claims, the Creeks, in a treaty with James Oglethorpe, granted to the British the coast land between the Savannah and Altamaha rivers, reserving for themselves hunting rights on the islands of Ossabaw, St. Catherines and Sapelo (Coulter 1940:38; Lovell 1933:19). These islands were destined to play an important role in the developing history of Georgia.

Shortly after Oglethorpe first landed at Yamacraw Bluff near present-day Savannah, he engaged the half-breed niece of the Creek Emperor of Coweta as his interpreter. This tribal princess, whose Indian name was Coosaponakeesa and English name was Mary, had been educated as a Christian in South Carolina. In 1717 she married the half-breed son of Colonel John Musgrove of South Carolina (Coleman and Ready 1976: 257). Mary Musgrove and her husband operated a prosperous trading establishment near Yamacraw at the time of Oglethorpe's arrival in the Colony; and upon meeting the Englishman Mary turned her attention from the trading establishment to working as Oglethorpe's interpreter and as an Indian agent. Throughout this time, however, she occasionally provided goods to the colonists on credit (Coleman and Ready 1976:257). During the period Mary served Oglethorpe, she was widowed, remarried a Captain Mathews, and was widowed once more. Mary's third husband, the Reverend Thomas Bosomworth, proved to be an exceptionally ambitious man; thus, it possibly was under his influence that a Creek Chieftain named Malatchi bestowed the islands of St. Catherines, Ossabaw, and Sapelo to Mary in 1747 (Lovell 1933:60; Vanstory 1956:11; Coulter 1940:38). Bosomworth and his wife planned to develop the islands into great plantations; however, Colonial authorities rejected the claim based on their policy of limited land grants. Bosomworth took the case to court and at the same time made claims for Mary's early services to the Crown for which, he asserted, she had never been paid (Coleman and Ready 1976:256-263).

This dispute remained a disruptive factor in local Indian relations for over ten years and the Board of Trade was anxious to settle the claim when Governor Henry Ellis arrived in the Colony in 1757. Ellis was extremely adept in his relations with the Indians, and late that same year a new treaty was made with the Creeks in which the Indians ceded to Ellis, for the Crown, the islands of Ossabaw, Sapelo, and St. Catherines, with a formal denial that they earlier had been given to Mary Musgrove (Abbott 1959:77).

Ellis' finesse in Indian relations was evident with his next move. Rather than use the cession to devastate the Bosomworth claim and prolong the friction caused by it, he urged the Board of Trade to make a settlement with the Bosomworths to silence them in future Indian councils (Coleman and Ready 1976:89, 100, 158, 210). Owing to improvements the Bosomworths had already made on St. Catherines Island, it was agreed that they would be granted that island as their own, while Ossabaw and Sapelo were to be sold, and the proceeds given to Mary to settle the goods and services claim. She and Thomas were to receive £450 for goods and £1650 for services (Coleman and Ready 1976:254).

The Georgia islands were advertised in the *Carolina Gazette* on December 10, 1759, and were put up for auction in 500 acre tracts. The initial bids were low and thus unacceptable to Ellis; and on April 14, 1760 the islands were again put up for auction, separately and without being divided into tracts (Coleman and Ready 1976:225). Ossabaw was sold for £1350 and Sapelo for £700. Both islands were purchased by Grey Elliott, a land speculator and member of the King's Council in the Colony of Georgia (Coleman and Ready 1976:243; Hart n.d.:1; Vanstory 1956:12, 45). This sum was accepted by the Bosomworths and a discharge of all claims against the crown was signed. On June 27, 1760, following years of controversy, Henry Ellis forwarded to the Board of Trade "A full account of the sale of Sapelo and Ossabaw Islands and other Indian lands to satisfy the Bosomworth claims against the Crown" (Coleman and Ready 1976:243). His Excellency George II granted to Grey Elliott, Esquire, the islands of Sapelo and Ossabaw on October 31, 1760 (Candler 1907:00; Coleman and Ready 1976:331).

Sapelo changed ownership several times in the next few years. Andrew Mackay, an Indian trader, purchased the island from Elliott in 1762 and was its first large-scale planter (Hart n.d.:1). Mackay was linked by marriage to the McIntosh family. Mary Catherine Mackay had married William McIntosh, son of John Mohr McIntosh, one of the original Iverness Scotsmen to settle in the colony (Wylly 1916:6; Counter, 1940:4). Although Andrew Mackay died in 1769, William McIntosh and his brother, Lachlan, apparently continued planting on the island, as it was still under cultivation at the time of the Revolution. Even as late as 1776 Lachlan McIntosh had complained that a British schooner had taken slaves and other valuables from Sapelo (Vanstory 1956:45).

Upon the death of Mackay in 1769, ownership of Sapelo advanced to Mackay's widow and stepson; both wished to sell the island (Wylly 1916: 6-7). However, lack of communication and the war had caused a long delay in its sale. John McQueen, a South Carolinian, eventually purchased Sapelo from the Mackay Estate in 1784. Educated in England, McQueen had first brought ribbon cane to the United States from Jamaica and distributed it among his Georgia friends (Coulter 1940:113).

McQueen lived in plantation splendor far beyond his means. Finally, debts forced him to flee to East Florida where he became a Spanish citizen (Hart n.d.:1). The island again changed hands in 1789 when McQueen sold Sapelo, Little Sapelo, Blackbeard, and Cabretta Islands to Francis Marie Loys Dumoussay Delavauxe for £10,000. Shortly afterwards, in 1790, a petition was filed in the Liberty County Court to divide the islands into equal shares among Dumoussay Delavauxe, Julien Joseph Hyacinth De Chappedelaine, Pierre Caeser Picot DeBois Feuillet, Christopher Poullain Dubignon, and Grand Clos Mesle (Wilson 1969:103). In this agreement the islands were to be divided into five parts. Each copartner could live anywhere on the islands and enclose from 600 to 800 acres of land for his own use. General accounts were to be kept and all bills and accounts were to be exhibited and paid by a manager. In addition to escaping the French Revolution, the purchase was made for speculative purposes, one of which is purported to have been the breeding and sale of slaves; however, there are no records to indicate that this plan was ever developed (Coulter 1940:39). In 1793 a French deed of sale was filed in Liberty County from Francis Marie Loys Dumoussay Delavauxe and Julien Joseph Hyacinth De Chappedelaine to Nicholas Francis Magon De Ville Huchet and Grand Clos Mesle (Wilson 1969:101).

The French attempt to further develop Sapelo was doomed from the start. DeVille Huchet was unable to adjust to island life, and soon returned to France (Hart n.d.:2). Dubignon distrusted Dumoussay Delavauxe, left Sapelo, and eventually became the owner of Jekyll Island to the south (Coulter 1940:39; Vanstory 1956:176-177; Hart n.d.:2; Wylly 1916:9). Picot De Bois Feuillet remained on Sapelo but not without some contentions. Before leaving France for the island, De Bois Feuillet had sent large sums of money to his nephew, De Chappedelaine, with instructions to purchase lands and slaves and to build a home for De Bois Feuillet's family. Response from De Chappedelaine described glowing progress in all areas. Not until De Bois Feuillet wrote of his impending arrival did his nephew finally purchase the fifth individual share of Sapelo. The remainder of De Bois Feuillet's money reportedly went to gambling (Wylly 1916:8). When De Bois Feuillet reached Savannah in 1789 with his wife and only daughter, Natalie, he found only the most meager house, a few slaves and no facilities for the household servants he had brought from France. Furious, De Bois Feuillet order De Chappedelaine off his property, threatning to kill him if he ever returned. De Chap-

pedelaine nevertheless did return in De Bois Feuillet's absence, perhaps to ask his aunt to intercede for him or to see the beautiful Natalie (Wylly 1916:8). When De Bois Feuillet unexpectedly returned home, a duel followed. De Chappedelaine was badly wounded in the fight, and De Bois Feuillet was placed under arrest for assault with intent to kill. He was represented by Joseph Clay of Camden County and was acquitted. De Bois Feuillet was so grateful to Clay that he offered the attorney Natalie's hand in marriage. Clay was already married, however, but mentioned that he had an unwed brother, Ralph. Years later Natalie married Ralph Clay of Bryan County and bore him five children.

Dumoussay Delavauxe died on Sapelo in 1794 at the age of forty. Though he never saw his dreams for Sapelo materialize, he anticipated success right up to the time of his death. De Chappedelaine also died that same year (Coulter 1940:39; Hart n.d.:2). Picot De Bois Feuillet and his wife remained on Sapelo at their home called Bourbon for many years but finally returned to Bryan County to be near Natalie.

The original share owned by Grande Clos Mesle was sold to the Marquis De Montalet, a former planter from Santo Domingo (Vanstory 1956:46; Lovell 1933:97; Coulter 1940:39). Upon the death of his young wife, the Marquis moved from the mainland to Sapelo and resided in his home called "Le Chatelet" with his companion, the Chevalier de la Horne. Remains of "Le Chatelet," a name transformed to "Chocolate" by island slaves, still stand today (Figure 1). Monsier de Montalet and his friend lived quietly at Chocolate. These elderly Frenchmen occasionally entertained, but much of their time was spent cultivating their gardens and training Cupidon, their black chef. Montalet was so delighted with Cupidon that he eventually placed the *cordon bleu* over the kitchen door (Vanstory 1956:46; Lovell 1933:98). Lengen describes the two old gentlemen as spending many morning and evening hours leading a pig on a lease through the thicket, searching for truffles, because "the eating of these make man more gentle and women more tender" (Wylly 1916:10; Lovell 1933:113).

In 1802 Thomas Spalding purchased 4000 acres on the south end of Sapelo and for a time was neighbor to the Marquis. After the Marquis and the Chevalier died, Chocolate was sold to a Danish seaman, Captain Swarbeck. The Captain replaced or restored many of the tabby structures and lived at Chocolate until the early 1830s when a northerner, Dr. C. W. Rogers took up residence (Lovell 1933:114-116). A slab or marble purportedly from the Marquis' grave was placed above the door of Dr. Rogers barn, which still stands today. Spalding eventually purchased all of Sapelo with the exception of 650 acres on the eastern side of the island at Racoon Bluff.

The name of Thomas Spalding is tightly bound to the name of Sapelo Island. Born March 25, 1774 on St. Simons Island, Thomas was the only child of James and Margery McIntosh Spalding and was heir to the wealth

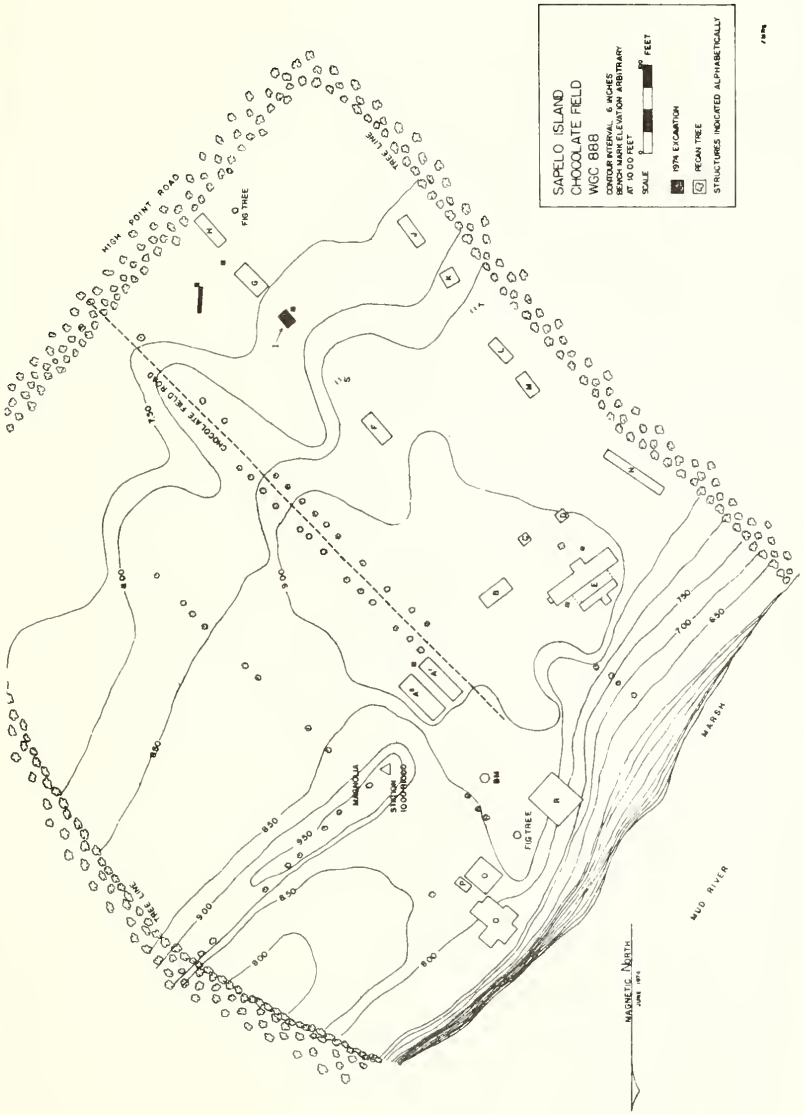



*Figure 1*
*Sapelo Island: Chocolate Field.*

and reputation of two of the most influential families on the Georgia coast. Well educated in his youth, Thomas developed a diversity of interests and took seriously his responsibilities as a leading citizen. He was admitted to the bar in 1795 and in that same year married Sally Leake, only child of Richard Leake, a distinguished coastal planter. The Spaldings lived on St. Simons Island at their estate called Orange Grove, where Thomas accumulated land and slaves. In 1800 the Spaldings traveled to Europe, where Thomas spent much of his time observing the organization and economic life of the people. He regularly attended sessions of Parliament in London (Coulter 1940:20). These experiences deeply impressed him, and throughout his life Spalding often referred to what he had learned during his overseas trip.

Upon his return from Europe, Spalding purchased Sapelo and served in both the Georgia Senate and the United States Congress between 1803 and 1806. Resigning from Congress in 1806, Spalding returned to Georgia, and though always active in local events, he never again left his Sapelo home for extended periods of time (Coulter 1940:15-35). He devoted his time to plantation business and writing and became one of the leading agriculturalists of his day. Although Spalding was well read on cotton production and published several articles on its growth and development, he also was an experimenter and believed that crop diversification was necessary; dependence on cotton alone, he reasoned, would lead to financial ruin.

Spalding developed an agricultural program that stressed not only growth of staple crops but the importance of secondary crops and the promotion of new products. He encouraged his neighbors to diversify by his own example and through publications (King 1966:122). He experimented with indigo and silk, olives and oranges, and with crop rotation and reversible plows.

Spalding's highest hopes for diversification lay in sugar cane. He first began experimenting with cane in 1806 (Coulter 1940:111). Although Major Butler, John McQueen, and a few others earlier began planting sugar cane, Spalding was looked upon as the father of the sugar industry in Georgia (Coulter 1940:121). By 1816 he was able to write a detailed description of sugar production, complete with itemized cost estimates and specifications for the sugar works (Coulter 1940:230-247). The remains of the Sapelo sugar works were archaeologically investigated in 1976 and generally followed Spalding's descriptions with a few exceptions. Spalding possibly was describing ideal operations, modifying inadequacies from his experience (Crook and O'Grady 1977:385).

Spalding's success in sugar production steadily increased through the 1820s, partially due to the tariff placed on raw sugar during the War of 1812. Though the tariff was reduced soon after the war, prices continued to run high until the early 1830s when sugar production slowed down. By the 1840s no more than twenty planters in Georgia raised sugar commer-

cially, all of these coastal planters. Spalding believed the reason for this decline to be low prices and lack of tariff protection (Coulter 1940:124-127). During this period Spalding had not neglected cotton, and was one of the largest sea island cotton planters on the Georgia coast. He also grew substantial amounts of rice, and in 1835 developed a method of transporting rice bundles from the fields using wooden rollers and tracks, which proved to be particularly beneficial in lessening the labor of his slaves.

Spalding accepted the institution of slavery with misgivings. His response to such a fixed institution in the social and economic order of the time was to moderate it as much as possible. He developed incentive programs and allotted to his slaves some free time for private interests. Supervision was handled by himself or black overseers and managers. Unique among Spalding's slaves was a black Mohammedan named Bu Allah. Patriarch of the Sapelo slaves, Bu Allah was considered second in command on Sapelo. Traditions and legends which persisted after his death inspired Joel Chandler Harris to base two fictional works on Bu Allah's life (Coulter 1940:83-84; Vanstory 1956:49-50). Spalding's trust and respect for Bu Allah was such that during the War of 1812, he secured muskets which he gave to Bu Allah, with orders to drill the slaves and protect Sapelo in the event of a British attack (Coulter 1940:82-86; Vanstory 1956:49). Bu Allah also was responsible for saving many lives in the hurricane of 1824.

Hurricanes were a cause of great concern on the coastal islands and Spalding believed they were becoming more frequent in his time. In 1804, 1813, and 1819, gale forces struck the coast, causing death and destruction. The hurricane of September, 1824 was one of the worst to hit the coast of Georgia, and it struck hardest on the exposed coast of Sapelo, causing a wall of water six feet high to sweep across much of the island. Spalding's entire crop, all his sheep, 250 head of cattle, and twenty seven horses and mules were destroyed. In addition, eight or nine lives were lost (Coulter 1940:48). Other fierce gales were to hit Sapelo later, but none was as devastating as the hurricane of 1824.

In spite of Spalding's driving interest in his work, he was a devoted family man, and soon after going to Sapelo he built his south end mansion. Constructed of tabby, the structure was solid and low, built to resist summer heat, winter cold, and the hurricanes which blew in from the sea; the structure withstood the 1824 hurricane. Spalding planned his home for future generations as well as his own. He and Sarah produced sixteen children, suggestive of a certain guarantee that Spaldings would occupy "the big house" for many years to come. Ironically, this was not to happen.

For nearly half a century the Spaldings lived on Sapelo. Sarah died in 1834; the living children had reached adulthood by this time and had moved to the mainland. Spalding outlived five of his seven sons. Of his

remaining two sons, Charles had no children, and his only hope for a continuation of the Spalding name rested with Randolph. Spalding died in 1851, and willed the plantation to Randolph's son, Thomas Spalding II. For the next ten years Sapelo was a part-time home for the Spalding children.

Civilians vacated Sapelo at the outbreak of the Civil War. Confederate soldiers were stationed on the island for a short time in 1861, but they too were soon evacuated. After the war Sapelo was occupied during Reconstruction by outsiders. When the Spalding heirs finally regained their property, the deteriorated mansion was uninhabitable. The family lived in smaller houses for some years but eventually sold off parts of the property to various owners (Vanstory 1956:49-50). Fields were allowed to overgrow to provide cover for birds and game.

In 1911 Howard Coffin, the Hudson automobile manufacturer, visited Sapelo, became intrigued by its beauty, and in 1912 bought the island. The south end home was restored by Coffin and was used as a vacation retreat for nearly ten years, when he decided to rebuild and remodel the mansion. Coffin's cousin, Alfred W. Jones was in charge in Coffin's absence, and between them they rebuilt the island empire. Wells were drilled, and roads and bridges were built. The mansion was remodeled and enlarged. Eventually the "big house" became Coffin's permanent home, and once again Sapelo offered hospitality to its visitors. Among these visitors were Charles Lindbergh, Calvin Coolidge and Herbert Hoover (Vanstory 1956:51-52; Hart n.d.:2).

Twenty five years after the Coffins bought Sapelo, Howard Coffin died. Its next owner was tobacco magnate Richard J. Reynolds of North Carolina. Reynolds continued Coffin's practice of large scale farming, cattle breeding, and experimentation. He promoted the growth of wildlife and bird retreats on uncultivated parts of Sapelo and sponsored several educational programs, including the establishment of a Marine Research Foundation in 1954 (Vanstory 1956:63; Hart n.d.:2).

In 1969 the northern portion of Sapelo was purchased by the State of Georgia from Reynold's widow and presently served as a wildlife refuge. The southern end of the island, which was utilized by the Marine Research Foundation, was later acquired by the State and is now the location of the University of Georgia Marine Institute. Descendents of Thomas Spalding's slaves make their homes at Hog Hammock; and Sapelo continues today much as it did in Thomas Spalding's time, with research and experimentation as major themes.

# SPALDING'S SUGAR WORKS SITE, SAPELO ISLAND, GEORGIA*

By Morgan R. Crook, Jr. and Patricia D. O'Grady

## INTRODUCTION

Production of sugar and molasses was a major enterprise in the southern United States during the first decades of the 19th century. Louisiana was the prime area of the industry, followed by Florida, then Georgia and South Carolina. Much information is available from documentary sources for this period, however little is known archeologically of construction details and material culture associated with the early sugar industry. Archaeological investigations consisting of structural mapping and exploratory excavation at Spalding's Sugar Works Site on Sapelo Island, Georgia, provides some detail of sugar operations (Figures 1 and 2). The investigations were conducted during the summer of 1976 as a portion of a West Georgia College Archaeological Field School under the supervision of Lewis H. Larson, Jr., Professor of Anthropology, West Georgia College.

This report represents an attempt to integrate the archaeological and historical record to address questions of the history of sugar operations at the site. First a brief examination of the economic matrix of which sugar production was a part is made to determine the influences which gave rise to the industry, fostered its continuance, and eventually led to its demise. Next the operations associated with sugar production are examined, looking at their productive advantages and concomitant problems. Results of the archaeological investigations are then discussed, followed by a concluding section which summarizes the documentary information and recovered archaeological data.

## THE ECONOMIC MATRIX

During the 18th and first half of the 19th centuries, market values of the agricultural staples (indigo, sugar, Sea-Island cotton, and rice) of the Southern Atlantic Coast fluctuated depending on trade relations, foreign competition, and market competition between the staples themselves. Sugar production developed and fell as a result of these economic circumstances.

---

*Reprinted by permission from Industrial Archaeology, Vol. 13, No. 4, Pp. 318-385. Published by Graphmitre Ltd., 1 West Street, Tavistock, Devon, England.

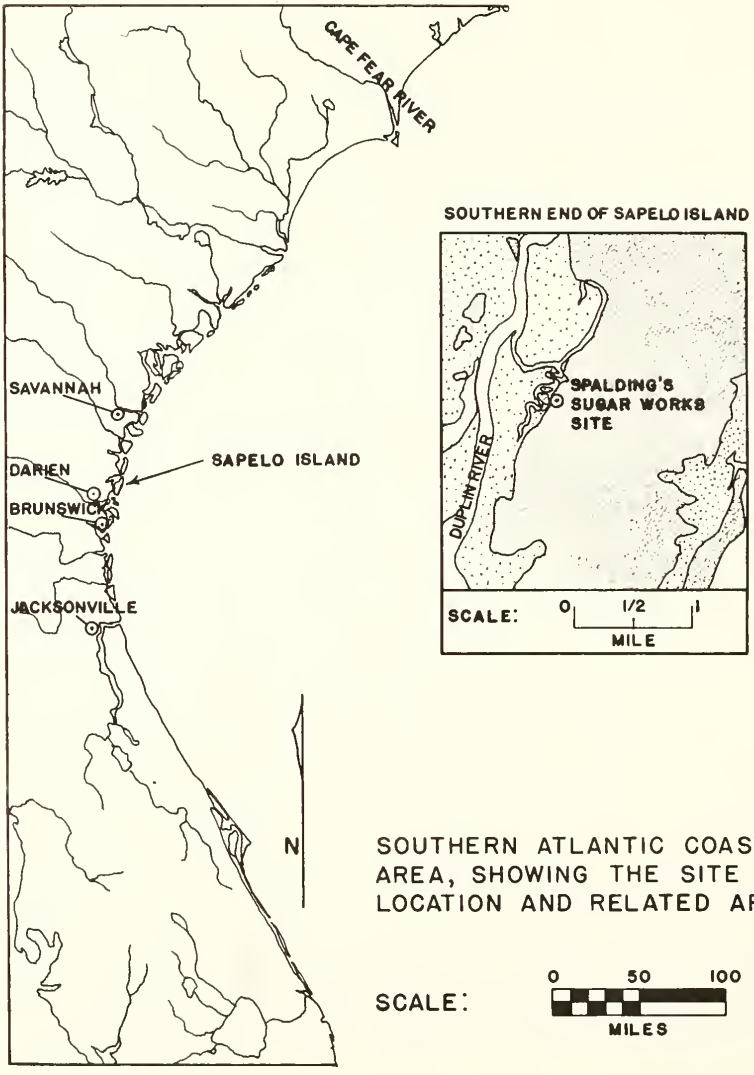



*Figure 1*
*Sapelo Island and the Sugar Works Site.*

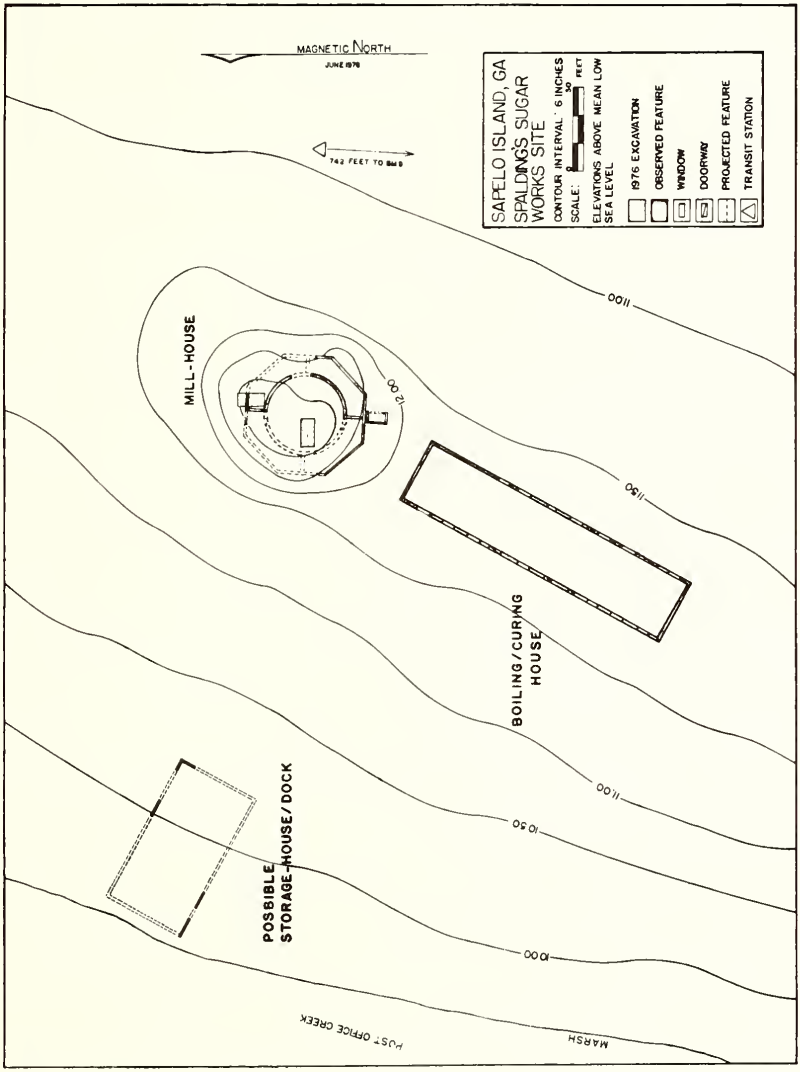



*Figure 2*
*Spalding's Sugar Works.*

Indigo was commercially grown in the Southern States during most of the 18th century. Produced in Louisiana as early as 1725, the crop became an important staple until the last decade of the century when competition with superior Guatemalian indigo along with pressures of rivaling cotton and rice production led to its decline. Indigo was produced along the South Atlantic Seaboard; however, only in Florida where wild indigo was found in abundance and climatic conditions were well suited, did the crop develop economically. Here the industry also declined under the pressure of Guatemalian and new crop competition. Early production experiments were made in Georgia and the Carolinas, but the crop never gained a secure market because of a limited growing season and inferior crop quality (Gray 1933:73, 74).

Commercial rice cultivation developed along side indigo and continued long after the ingido industry had collapsed. Employment of irrigation in inland swamp areas increased production during the first half of the 18th century. Production increased most dramatically during the last decades of the colonial period with the utilization of tidal swamps and marsh areas, which allowed effective weed control, insect control, and fertilization through daily flooding and draining of the prepared rice fields. However, areas well suited to tidal irrigation were limited to river areas from the lower Cape Fear River to around Jacksonville, Florida. Portions of South Carolina and Georgia were less favourable for tidal irrigation because of labour scheduling problems resulting from exceptionally high tides which occurred twice daily (Gray 1933:289, 721).

Whereas the indigo market declined, rice production continued with developing cotton and sugar. The rice market often fluctuated with the cotton market. When prices were good for cotton, planters tended to neglect food-crops, increasing the demand for rice. The cotton industry began to develop commercially during the last decades of the 18th century in response to the declined indigo industry and peaked around 1805, after which prices were sporadically lower. Cotton depended heavily upon a foreign market. The embargo of 1808 and trade restrictions imposed by the War of 1812 led to decreased production. Conversely, the war had an advantageous effect on the rice market, owing to increased demands for foodstuffs (Gray 1933:725, 738).

Rice and cotton prices were sporadically higher following the war. Rice production increased from 1820 until 1835, leading to depressed market prices. Cotton production suffered from a tariff imposed from 1827 to 1833. Removal of the tariff resulted in a 45% increase in cotton prices. Prices were more or less stabilized at a high level from this time until the Civil War (Gray 1933:739). Market prices for rice were briefly elevated around 1835, however competition with inexpensive East Indian rice returned prices to low levels until 1860 (Gray 1933:726).

The sugar industry developed in relation to the other staples. Commerical production began around 1795 in Louisiana after indigo production

was commercially abandoned. By the first years of the 19th century the industry had grown substantially, depending heavily upon an American market. Price depressions in cotton from 1805 until after the War of 1812 provided new impetus for sugar production. Thomas Spalding began his milling operations during this period. He first planted cane in 1806 and between then and 1813 he initiated milling operations (Spalding 1937:230). Trade restrictions preceding the War of 1812 made the purchase of his milling machinery, available from English factories, very expensive. Spalding writes, "My progress to successfulness was obstructed by the non-importation act, by the embargo act, and finally by the war up to the year 1814. My Sugar works, in consequence of these obstructing causes, were very costly . . . " (Spalding 1829a:55).

The sugar industry expanded following the war due to protection from foreign competition by a stiff revenue duty on imported sugar, growing home market demands, and unstable rice and cotton markets. The conditions favorable to increased production are noted in an 1828 letter printed in the *Southern Agriculturalist:*

> "If all those who could make Sugar, would commence and quit the Cotton business, those who could not make Sugar, would get a better price for their Cotton . . . . There is no danger of glutting the Sugar market, for our country has too little Cane land, to supply the growing demand, which increases faster than the population. The Tariff of three cents per pound is ample protection." (McCoy 1828:182).

As a consequence of the protected home market afforded the sugar industry, prices were much more stable than cotton or rice. This provided the planter a predictable income source which complemented the fluctuating prices of his other crops.

Sugar prices remained stable until 1832, when import duties were lowered to about 60% of the American market value. This, along with deflated foreign markets and increases in cotton and rice prices, led to the abandonment of the sugar industry on many estates (Gray 1933:745).

## SUGAR PRODUCTION

When the sugar market was healthy, cane cultivation offered the planter several advantages, but production was not without complications. One important advantage was that sugar operations did not conflict with the planting and harvest of other plantation crops. Rice was usually planted between the middle of March and the middle of May, and was harvested by September (Knapp 1900: 12-13). Sea-Island cotton was planted between the middle of March and the first week of April. Picking the cotton began around the last week in August, and re-picking continued until about the middle of December (Hammond 1896:230). Cane planting began in mid-October. It could be continued over a five-month period and finished prior to rice and cotton planting. The cane crop was harvested in October and November,

after rice harvest and the first heavy cotton picking (Spalding 1828:553). Gregorie (1829:99) notes that,

> "the cane harvest arrives at a time when the planter's attention can be fully given to his plantation affairs . . . . Even after frost, if another crop requires immediate care, as for instance, picking in Sea-Island Cotton, the canes can be laid in matresses and in that state will keep during the Winter, producing nearly as much as ever."

The successful preservation of cane for seed was a crucial development for the planter. Otherwise planting the next crop and processing the present one would have had to occur simultaneously. This problem plagued Spalding in his early attempts at sugar production. He wrote in 1816 that before cane mattressing was employed, it was "impossible to plant more than a portion of your Cane, before you had to employ all your people in Manufacturing, and preparing your Sugar for Market" (Spalding 1937:231).

Once cane was ripe for sugar, harvesting and processing had to be accomplished in a short period of time, for cold-damaged cane produced inferior sugar if any at all. Fields were divided by roads in high lands and canals in low to allow expeditious cutting and loading of the cane on ox carts or flats bound for the millhouse. Milling operations were constantly supplied with fresh cane from the fields, the mill and boilers being worked night and day.

Expressed cane juice from the mill was passed through a gutter to the nearby boiling-house. Here the juice was clarified with lime, then passed into the largest of four successively smaller copper boilers (Spalding 1937:243-241). At first successful reduction of cane juice to sugar was dependent upon the skill and experience of the supervisor (Spalding 1937:241-242); however, by 1828 thermometers were used to determine the correct final boiling temperature (Spalding 1828:555).

The hot sugar-molasses mixture was placed in coolers, then transported in barrels to the adjoining curing-house. Molasses drained from the cooled mixture, leaving raw sugar in the barrels (Spalding 1937:243). The raw sugar was judged to be of good competitive quality, proper boiling resulting in light coloured grains. Refinement to pure white sugar was considered prohibitively expensive, therefore processing ended with the raw product (Spalding 1829b:101).

Nearby Darien, Georgia, was at least one market for the manufactured sugar and molasses. The molasses also supplied a distillery operated in Darien for the production of rum. "Darien sugar soon became such a staple that quotation of the market for that commodity there began to appear in the Savannah newspapers in 1818" (Floyd 1937:95).

Thomas Spalding published fairly detailed descriptions of the facilities associated with his sugar works. He gives us the following of his millhouse: It was,

"forty-one feet in diameter, of tabby, and octagonal in its form . . . the outer walls of this building are sixteen feet high. Upon these walls run a well connected plate, and over it is erected an octagonal roof, meeting in a point. Within about seven feet distance from the outer wall, is a circular inner wall, which rises ten feet; and from this wall to the outer one is a strong joint work, which is covered with two-inch Planks for a *Tread* for the Mules, Horses, or Oxen, that work the Mill . . . . there are two several [sic] doors, at opposite sides of the Mill-House in the lower story; the one for bringing cane to the Mill, and the other for carrying out the expressed cane; and these doors are six feet wide. There is also a door in the upper story with an inclined plane leading to it, to carry up the Mules, Horses, or Oxen that work the Mill." (Spalding 1937:236)

The mill was a vertical type, consisting of three wrought-iron covered wooden roolers. The machinery was elevated above the ground surface on a, "strong foundation of masonry, eight feet high, so as to be within two feet of a level with the Horse-way . . ." (Spalding 1937:237). Cane was fed through the rollers from the lower level and initially the expressed juice flowed through a gutter into receivers located in the boiling-house where it was clarified with the addition of lime. Later the juice was clarified in wooden vessels located in the millhouse (Spalding 1828:555), then transported to the boiling-house.

The boiling-house contained a set of graduated copper boilers, cypress coolers, and initially the clarifiers. The boilers,

"are built into a solid mass of brick-work on one side of the boiling-house. The fire being lead [sic] from the smallest boilers, under *which* it burns, upon grating-bars, which admit the ashes to fall into the ash-pit below. The heat is so kept in by the Mason-work, that the second and third boilers boil as furiously as the first, and so would the fourth but for the frequent supply of cold juice which is drawn from the receiver into it.

Opposite to the Boilers, on the side and end of the house, are ranged eight Coolers, made of cypress two inch plank, of an oblong form, and ten inches deep, which contain a tierce of Sugar each. These coolers receive the syrup out of the track or smallest boiler, and in them in granulates as it cools." (SPalding 1937:241).

The cooled sugar and molasses mixture was then transported to the adjoining curing-house to separate.

"The curing-house is united to the boiling-house, and makes with it the form of and [sic] L or T . . . In the curing-house, strong joists cross from side to side, at fifteen inches apart, resting at the end upon an abutment wall. The bottom of the house, is two inclined planes, of two feet descent, that discharges the molasses into a gutter in the middle. This gutter also inclines a little to one end, where it empties itself into a close cistern containing two thousand gallons. —The

cistern may be made of cypress plank, rammed at the bottom and sides with clay." (Spalding 1937:243).

## THE ARCHAEOLOGICAL DATA

The structural remains of the Sugar Works Site were mapped as a portion of the archaeological investigations (Figure 2). In addition, two exploratory units (five feet by ten feet) were excavated in the mill-house and the area immediately east of the boiling/curing-house was probed for foundation remains.

The recorded structural remains of the mill-house generally support Spalding's descriptions; however, some of his measurements seem exaggerated (see Figure 3). The mill-house had an outer octagonal wall; each length 18 feet long, one foot wide, and approximately 13 feet high. The wall was constructed of form-poured tabby zones, 11 inches high and one foot wide, which extended the full length of each wall (18 feet). The wall form, evidently consisting of two planks, was held in place by one-inch diameter wooden dowels and occasionally metal pegs. The dowels were placed through

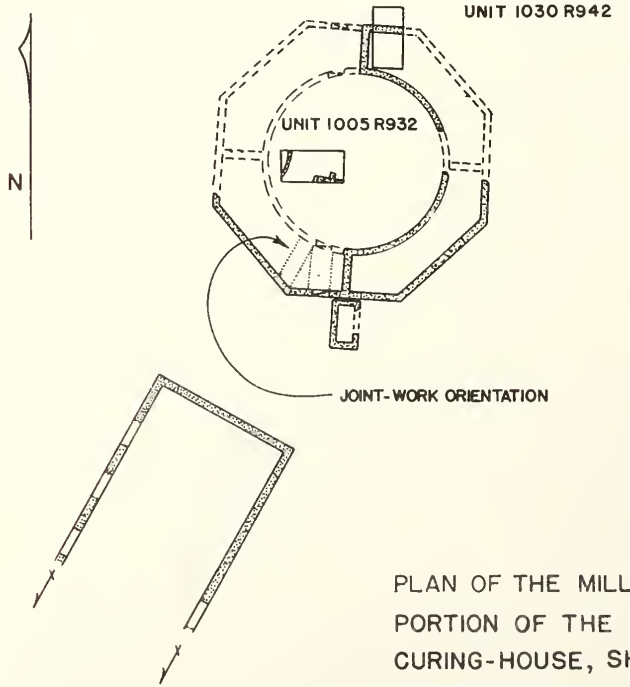



*Figure 3*

the planks near the top and base, each pair separated from the other by one foot, eight inches. Tabby was poured into the form to the level of the upper dowels and the surface was smoothed. After the tabby was set, the form was dismantled and the upper dowels were used in the base of the next form. This procedure continued until the walls reached their full height. The wall then received an ¼ inch to ½ inch plastered veneer (Plate 1).

One opening, probably a door-way, remains in the southern portion of the octagon wall. The door-way is two feet, six inches wide and six feet, six inches high. Presumably other door-ways were located north of the remaining one, through the circular inner wall and in the northern portion of the octagon wall (Plate 2).

*Plate 1*
*Southwestern section of the Octagon Wall (outer face). View to the northeast.*

The circular inner wall is connected to the outer octagon by a tabby wall five feet, six inches long, constructed in the same manner as the octagon wall. The circular inner wall was constructed following the same procedure as that used for the octagon wall, however some details differ. The tabby was poured into forms two feet high and of undetermined length. These curved forms were held by rectangular wooden pieces (¾ inch by 2 inch), spaced at three feet, six inch intervals. Only two of the poured zones remain, however the wall was originally about eight feet, six inches high, based on the height of the connecting wall and the position of support-beam holes in the inner face of the octagon wall.

*Plate 2*
*Southern section of the Octogon Wall (inner face). View to the south.*

The animal tread of the mill-house connected the inner and outer walls. Spalding states that the tread was made of two-inch planks covering a strong joint-work. The holes remaining in the inner face of the octagon wall indicate that the joint-work consisted of four inch by six inch beams. One end of th beams was placed in the octagon wall as the form was being poured. The other end apparently rested in or upon the inner wall. The orientations of the beams as indicated by the angles of the remaining holes are shown in Figure 3. The tread was elevated about eight feet, six inches above the mill floor, based on the height of the beam holes.

Spalding states that access to the tread was by an inclined plane. The rectangular appendage at the southern end of the mill-house is interpreted as the foundation for this inclined plane. Construction details of the appendage are the same as those of the octagon wall (Plate 3).

*Plate 3*

*Probable foundation of inclined plane leadint to the animal tread. View to the northeast.*

One exploratory unit (Unit 1005R932) was excavated in the interior of the mill-house, approximately two feet east of the circular inner wall. Two structural features were encountered in the unit (Figure 4). The northern face

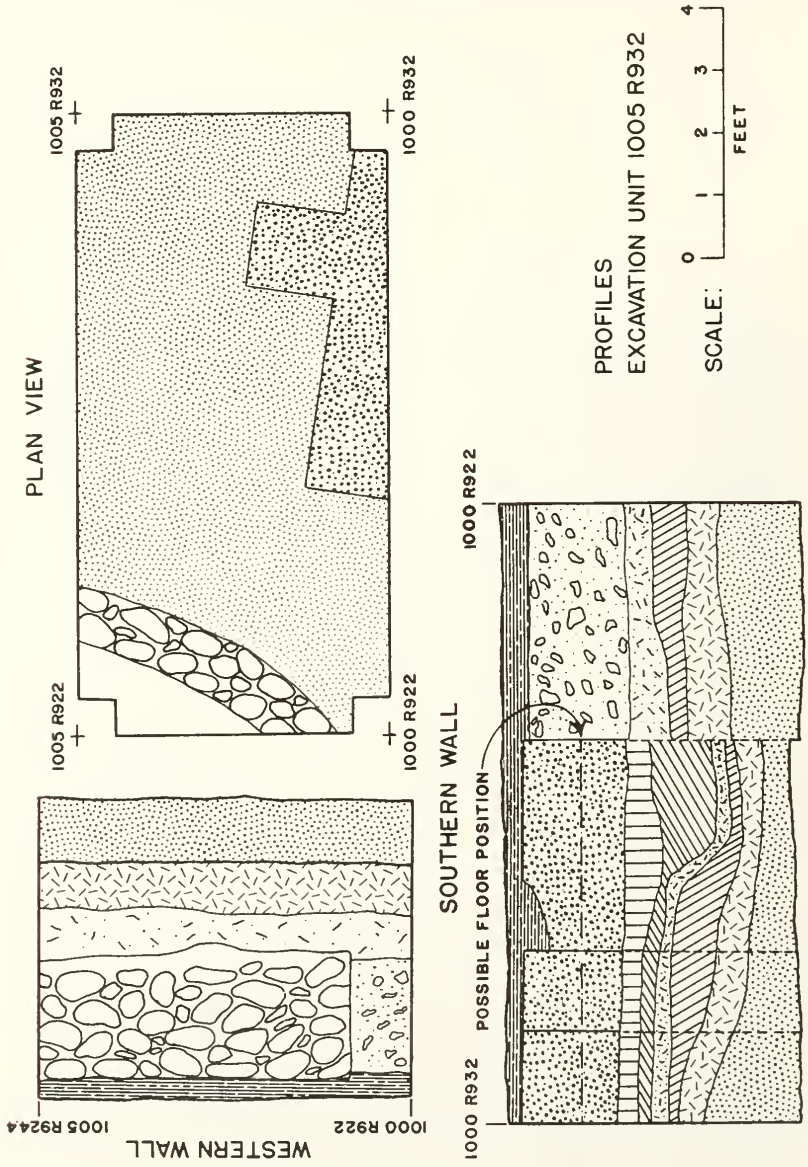



*Figure 4*
*Structural features in the interior of the Mill-House.*
*See page 26 for profile symbol key.*

of a tabby construction was located along the southern wall of the excavation unit (Plate 4). The feature was constructed of poured tabby and had a thin plastered veneer upon its surface. A narrow discoloration line was observed on the plastered face of the feature, possibly indicating the position of a floor. A layer of shell was located immediately beneath the feature which would have served as a footing when the tabby was poured. This construction is probably part of the mill machinery foundation described by Spalding. Beneath the western end of the foundation the shell deposit increased in

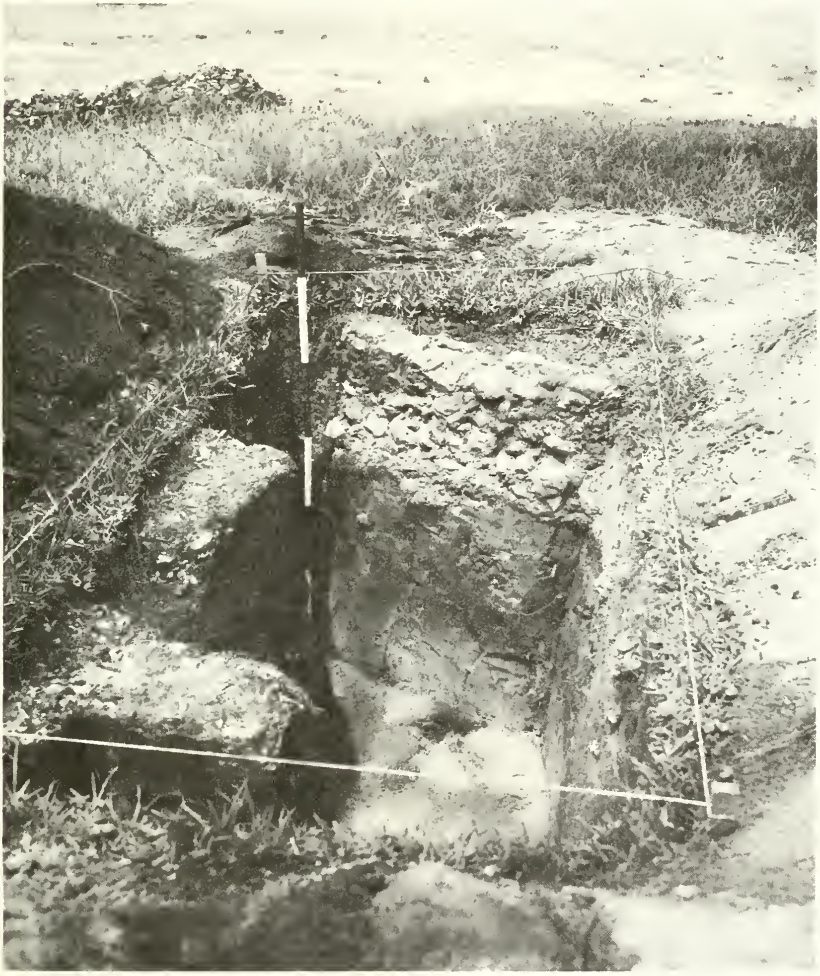


*Plate 4*

*Excavation unit 1005R932. Possible clarifying vat in upper central portion of the photograph and probable mill machinery foundation to the left. View to the west.*

depth to about one foot, six inches beneath the base of the feature. This deposit extended across the excavation unit, roughly perpendicular to the foundation. The function of the shell deposit is uncertain, however it may have provided a bed for the gutter than Spalding mentions to have carried expressed cane juice to the boiling-house.

The other feature encountered in the excavation unit was a curvate stone and tabby-mortar construction with a plastered floor roughly eight inches below the present top of the stone and mortar wall (Plate 5). The junction of the plastered floor and wall received an extra coating of the plaster mixture, suggesting the structure was designed to hold a liquid. The function of the feature is undetermined, but it may have been a clarifying vat for the expressed cane juice.

*Plate 5*
*Excavation unit 1030R942. Northern face of Octagon Wall foundation.*

The artifacts recovered from the excavation unit were generally confined to a tabby rubble zone which extended two feet beneath the present surface. The artifact frequencies and distribution are summarized in Table 1. With the possible exception of two sherds, the aboriginal pottery recovered certainly represents pottery which accompanied the shell borrowed for tabby construction from aboriginal shell middens.

TABLE 1

EXCAVATION UNIT 1005 R932
ARTIFACT FREQUENCIES AND DISTRIBUTION

| Description | Feet below the surface 0.0 - 0.5 | 0.5 - 1.0 | 1.0 - 1.5 | 1.5 - 2.0 | 2.0 - 2.5 | 2.5 - 3.0 | 3.0 - 3.5 | 3.5 - 4.0 | Total |
|---|---|---|---|---|---|---|---|---|---|
| Aboriginal Pottery | | | | | | | | | |
| Wilmington Residual | | | | | | | | 1 | 1 |
| Grit Tempered Plain | 2 | | | | | | | | 2 |
| Grit Temp. Stamped | 5 | | | | | | | | 5 |
| Plain Gr/Sa Temp. | | | | | | | | 1 | 1 |
| Sand Temp. Residual | 2 | | | | | | | | 2 |
| European Ceramics | | | | | | | | | |
| Whiteware | | | | | | | | | |
| Polychrome trans. | 4 | | | | | | | | 4 |
| Lustreware | | | 1 | | | | | | 1 |
| Plain | 7 | | | | | | | | 7 |
| Glassware | | | | | | | | | |
| Bottle Fragments | | | | | | | | | |
| Pepsi, modern | 1 | | | | | | | | 1 |
| Coca Cola | | | | | | | | | |
| body sherd '1915' | 1 | | | | | | | | 1 |
| base sherd | 1 | | | | | | | | 1 |
| Tableware | | | | | | | | | |
| Pink pressed glass | | 2 | | | | | | | 2 |
| Miscellaneous Frag. | | | | | | | | | |
| Clear | 20 | 22 | 1 | | | | | | 43 |
| Clear, patinated | 18 | | 1 | | | | | | 19 |
| Green | | 1 | | | | | | | 1 |
| Amber | 1 | | | | | | | | 1 |
| Aqua | 3 | | | | | | | | 3 |
| Tubing, 1/4 in o.d. | 2 | | | | | | | | 2 |
| Tubing, 1/8 in o.d. | 2 | | | | | | | | 2 |
| Tubing, 1/16 in o.d. | | 1 | | | | | | | 1 |
| Light bulb | | | 3 | 1 | | | | | 4 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Iron | | | | | | | | | |
| Nails | | | | | | | | | |
| Round, wire | 6 | 3 | 2 | | | | | | 11 |
| Square, cut | 3 | 5 | | 1 | | | | | 9 |
| Clinched | 1 | | | | | | | | 1 |
| Spike | | | | | | | | | |
| Round | 1 | | | | | | | | 1 |
| Wire | 1 | | | | | | | | 1 |
| Light Bulb Base | 1 | | | | | | | | 1 |
| Wedge | | | 1 | | | | | | 1 |
| Door Bolt | | | | 1 | | | | | 1 |
| Door Hook | | | 1 | | | | | | 1 |
| Punch-Out* | | 1 | | | | | | | 1 |
| Stove Door** | | 1 | | | | | | | 1 |
| Corregated Fragment | | | 1 | | | | | | 1 |
| Miscellaneous Frag. | | 2 | 1 | | | | | | 3 |
| Bone | | | | | | | | | |
| Long Bone Frag. | | 1 | | | | | | | 1 |
| Miscellaneous | | | | | | | | | |
| Charred Wood Frag. | 2 | | | | | + | | + | 2+ |
| Charcoal Frag. | 4 | | | | | 4 | | | 8 |
| Wood Fragments | | + | + | 2# | | | | | 2#+ |
| Brick Fragments | 3 | 2 | | | | | | | 5 |
| Mortar Chunks | 5 | | | | | | | | 5 |
| Mortar, Flatsided | 1 | | | | | | | | 1 |
| Quartz Pebble | 1 | | | | | | | | 1 |
| Diabase Frag. | 1 | | | | | | | | 1 |
| Sandstone Frag. | 1 | | | | | | | | 1 |
| Unid. Lithic Frag. | 1 | | | | | | | | 1 |
| Modern Pocket Knife | 1 | | | | | | | | 1 |

*electrical utility
**sheet-metal, round
+fragmented
#2-1/2 pounds

The whiteware sherds recovered were restricted to the humus and rubble zones of the excavation unit. The English flooded American markets with transfer-printed cream and white earthenware until tariffs were raised in the 1800s (Ketchum 1971:120-121). Whiteware material was in use throughout the 19th century and could date to the early 1800s; however, since all the sherds were associated in or above the tabby rubble zone, they appear to have been deposited after milling operations were suspended.

The glassware recovered was also from the rubble zone and appears to post-date milling operations. Two pink fragments of pressed glass were recovered from the rubble zone. Pressed glass was first produced around 1827 and began to be fire-polished after 1850 (Lorrain 1968:38, 39). It was impossible to determine if the glass had been fire-polished because the rubble contained numerous charred materials and ash, evidencing a fire.

The machined nails represented were first produced in the early 1850s (Nöel Hume 1969:254). The remainder of the artifacts, excepting the wood fragment,, appear to be post 1850 in origin. The wood frag-

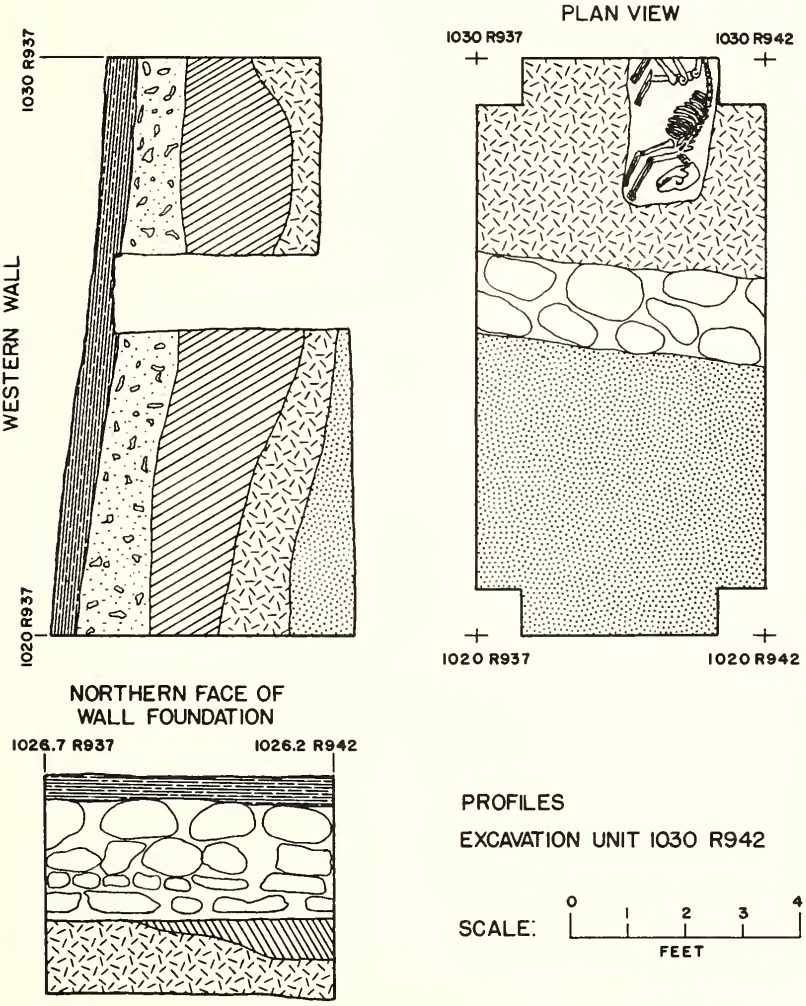
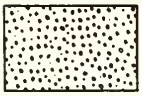


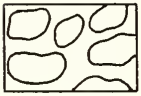

*Figure 5*
*Structural features in the northern face of the circular inner wall.*
*See next page for legend.*

# KEY OF PROFILE SYMBOLS

ROOT ZONE, HUMUS



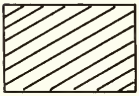
POURED-TABBY CONSTRUCTION



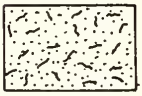
STONE AND TABBY-MORTAR CONSTRUCTION

TABBY RUBBLE

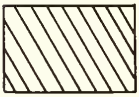
SHELL MIXED WITH TABBY-MORTAR



SHELL

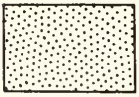


ASHY GREY SAND



ASHY BROWN SAND

BROWN SAND



STERILE TAN SAND

ments recovered from the 1.5 to 2.0 foot level were located at the base of the level along with sections of poorly preserved planks. The remains of floor or possibly roof materials may be represented by these fragments.

The second exploratory unit (Unit 1030R942) was excavated just north of the northern face of the circular inner wall. One structural feature and a dog interment were encountered in the unit (see Figure 5 and Plates 5 and 6). The structural feature consisted of the stone foundation of the octagon wall. The foundation was constructed of four layers of stone set in mortar. Stones used in the second layer were considerably smaller than those of the other layers. The foundation rested on a thin layer of mortar. The stone used may have been obtained from one of the ballast dump areas located just south of Sapelo Island.

A mature dog had been buried just north of the octagon wall. The burial pit was intrusive into the ashy brown sand zone from the above tabby rubble zone. The pit contained tabby rubble fill, indicating the dog was buried after the mill-house wall had fallen. The dog was left *in situ.*

The artifacts recovered from the unit were not confined to the tabby rubble zone as in the other excavated unit. This probably indicates that

*Plate 6*
*Excavation unit 1020R942: dog interment. View to the east.*

the wall fell at a later date in this area rather than association of the artifacts with milling operations. Stratigraphically the area appeared quite disturbed. The depressed areas of ashy brown sand north and south of the wall foundation probably represent areas dug for trash disposal before the octagon wall collapsed.

The recovered artifacts are summarized in Table 2, A through C. The artifacts generally date from the middle of the 19th century to modern times (presence of aboriginal pottery probably due to shell borrowing activities). A single lusterware fragment, two ironstone fragments, one yellowware fragment, and four porcelain fragments were found. These wares were in sure during the early 1800s; however, manufacturing continued throughout the century (Ketchem 1971: 120-122). The hand-pointed overglazed porcelain was manufactured during the second half of the 18th century (Nöel Hume 1969:259). The remainder of the procelain was undecorated and could date as late as the 20th century (Ketchum 1971:145).

TABLE 2
EXCAVATION UNIT 1030 R942
ARTIFACT FREQUENCIES AND DISTRIBUTION
(Table 2A)

| Description | Feet below the surface 0.0-0.5 | 0.5-1.0 | Total |
|---|---|---|---|
| Aboriginal Pottery | | | |
| Deptford check-stamped | | 1 | 1 |
| Savannah check-stamped | 1 | 4 | 5 |
| Savannah complicated-stamped | 1 | | 1 |
| Irene complicated-stamped | | 5 | 5 |
| San Marcos com.-stamped | | 1 | 1 |
| Unidentified grit-tempered | 1 | 6 | 7 |
| Unidentified sand-tempered | | 4 | 4 |
| Unidentified | 3 | | 3 |
| European Ceramics | | | |
| Porcelain insulator | 1 | | 1 |
| Glassware | | | |
| Amber fragments | 2 | 1 | 3 |
| Clear bottle fragments | | 7 | 7 |
| Clear bottle frag. patinated | | 3 | 3 |
| Panel bottle frag. "Califig" | | 1 | 1 |
| Iron Nails | | | |
| Square, cut | | 10 | 10 |
| Non-ferrous metal | | | |
| Square sheet | | 1 | 1 |

| | | | |
|---|---|---|---|
| Bone | | | |
| Deer long-bone fragments | 2 | 3 | 5 |
| Shell | | | |
| Conch | 1 | | 1 |
| Periwinkle | 5 | | 5 |
| Miscellaneous | | | |
| Charred wood | 2 | 3 | 5 |
| Tabby Mortar | 4 | 4 | 8 |
| Brick | | 2 | 2 |
| Stone | | 3 | 3 |

EXCAVATION UNIT 1030 R942
AREA NORTH OF THE OCTAGON WALL FOUNDATION
(Table 2B)

| | Feet below the surface | | | | | | |
|---|---|---|---|---|---|---|---|
| **Description** | **1.0 - 1.5** | **1.5 - 2.0** | **2.0 - 2.5** | **2.5 - 3.0** | **3.0 - 3.5** | **3.5 - 4.0** | **Total** |
| Aboriginal Pottery | | | | | | | |
| Wilmington Plain | | | | | | 1 | 1 |
| Savannah Check-Stamped | 1 | | | | | 1 | 1 |
| Unident. Grit-Tempered | 3 | | | | | | 3 |
| Unident. Grit/Sand Temp. | | | | | | 1 | 1 |
| Unidentified | | | | | | 1 | 1 |
| European Ceramics | | | | | | | |
| Porcelain, Plate Base | | | | | | 1 | 1 |
| Yellow-ware, Annular | | 1 | | | | | 1 |
| Ironstone, Plain | | | | | | 1 | 1 |
| Glassware | | | | | | | |
| Two Part Molded Fragment | | | | | | | |
| Califig syrup bottle | | | | | | | |
| Clear, neck and lip | | | | | | 1 | 1 |
| Aqua, neck and lip | | | | | | 1 | 1 |
| Square, base and side | | | | | | 2 | 2 |
| Aqua Window Pane | | | 1 | | | | 1 |
| Lamp Chimney | | | 25 | | | | 25 |
| Miscellaneous Fragments | | | | | | | |
| Clear | 1 | | | | | 11 | 12 |
| Clear, patinated | | 1 | | | | 3 | 4 |
| Dark green | | 4 | 2 | | | | 6 |
| Green, patinated | | | | | | 1 | 1 |
| Amber | | | | | | 1 | 1 |
| Aqua, patinated | | 1 | | | | 2 | 3 |
| White, frosted | | | 1 | | | | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Iron Nails | | | | | | | |
| Square, cut | | 1 | | | | | 1 |
| Square, cut, Fencing | | | 6 | | | | 6 |
| Fragments | | 3 | 1 | | | | 4 |
| Bone | | | | | | | |
| Squirrel Long Bone Frag. | 4 | | | | | | 4 |
| Squirrel Fragments | | 62 | | | | 1 | 63 |
| Deer Fragments | 1 | | | | | | 1 |
| Dog Fragments | | 1 | | | | 100 | 101 |
| Raccoon Fragments | | 2 | | | | | 2 |
| Possible Young Pig Fragments | | | | 214 | | | 214 |
| Miscellaneous | | | | | | | |
| Long Bone Fragments | | | | 1 | 1 | | 2 |
| Scapula Fragment | | 1 | | | | | 1 |
| Vertebra Fragment | | 1 | | | | | 1 |
| Radius Fragment | | 1 | | | | | 1 |
| Shell | | | | | | | |
| Conch | | | | | | 1 | 1 |
| Miscellaneous | | | | | | | |
| Charred Wood Fragments | | | 31 | | | | 31 |
| Brick Fragments | | 2 | 5 | | | 4 | 11 |
| Tabby Mortar Fragments | | | | | 5 | | 5 |
| Shist Fragments | 1 | | | | | 1 | 2 |
| Slate Fragments | | 3 | 8 | 1 | | | 12 |
| Sandstone Fragments | | | 1 | 3 | 7 | | 11 |
| Slag Fragments | | | 1 | | | 3 | 3 |
| Tile Fragment | | 1 | | | | | 1 |
| Cartridge Case | | | 1 | | | | 1 |

EXCAVATION UNIT 1030 R942
AREA SOUTH OF THE OCTAGON WALL FOUNDATION
(Table 2C)

| | Feet below the surface | | | | | | |
|---|---|---|---|---|---|---|---|
| Description | 1.0 - 1.5 | 1.5 - 2.0 | 2.0 - 2.5 | 2.5 - 3.0 | 3.0 - 3.5 | 3.5 - 4.0 | Total |
| Aboriginal Pottery | | | | | | | |
| Savannah, Check-Stamped | | 1 | | | | | 1 |
| Unidentified, Grit-Tempered | | 3 | | | | | 3 |
| Unident. Grit-Tempered, with orange paste | | 1 | | | | | 1 |
| European Ceramics | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Whiteware | | | | | | | |
| Lustreware Fragment | | 1 | | | | | 1 |
| Ironstone Fragment | | 1 | | | | | 1 |
| Porcelain Fragments | | | | | | | |
| Hand-painted Overglaze | | 1 | | | | | 1 |
| Plain | | | 2 | | | | 2 |
| Glassware | | | | | | | |
| Bottles | | | | | | | |
| Three part hinged molded | 1* | | | | | | 1* |
| Two part hingedmolded | | | 1* | | | | 1* |
| Molded Fragment | | | 1 | | | | 1 |
| Tableware | | | | | | | |
| Clear, leaf design | | | 1 | | | | 1 |
| Miscellaneous Fragments | | | | | | | |
| Clear | 2 | 5 | 1 | | | | 8 |
| Clear, patinated | 14 | 9 | 2 | | | | 25 |
| Green | 3 | 3 | | | | | 6 |
| Amber | 1 | | | | | | 1 |
| Amber, patinated | | 6 | 5 | | | | 11 |
| Aqua | 1 12 | | | | | | 13 |
| Dark green | | 5 | 3 | | | | 8 |
| Dark green, patinated | | 1 | 3 | | | | 4 |
| Iron | | | | | | | |
| Nails | | | | | | | |
| Round, wire | | | | 1 | | | 1 |
| Square, cut | 2 | 3 | 2 | | | | 7 |
| Tack | | | 1 | | | | 1 |
| Fragments | | | | | 1 | | 1 |
| Kettle Fragments | 2 | | | | | | 2 |
| Flat Fragments | 5 | 2 | 2 | | | | 9 |
| Strip Fragments | 1 | | | | | | 1 |
| Plunger, Spray Gun Type | 1 | | | | | | 1 |
| Wire Handle | | 1 | | | | | 1 |
| Bone | | | | | | | |
| Squirrel Mandible Fragments | | | | 1 | 4 | | 5 |
| Squirrel Long Bone Frag. | | | | 13 | 5 | | 18 |
| Squirrel Pelvis Fragments | | | | 2 | | | 2 |
| Squirrel Sacrum Fragment | | | | 1 | | | 1 |
| Squirrel Vertebra Frag. | | | | 7 | 2 | | 9 |
| Squirrel Skull Frag. | | | | 1 | | | 1 |
| Molar Root | | | | 1 | | | 1 |
| Long Bone Fragments | 2 | 2 | | | | | 4 |
| Unidentified Fragments | | | | 124 | 65 | | 189 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Miscellaneous | | | | | | | |
| Charred Wood Fragments | | | | 24 | | | 24 |
| Tar, Petroleum Based | 1 | 1 | | | | | 2 |
| Brick Fragments | | 3 | | | | | 3 |
| Sedimentary Lithic Frag. | | 1 | | | | | 1 |

*indicates intact bottles

The glassware recovered includes bottles and fragments, some tableware, windowpane glass, lamp chimney fragments, and miscellaneous fragments. A three-part molded bottle (possibly a bitters bottle) and a two-part molded bottle (probably a small medicine bottle) were found south of the octagon wall. The three-part mold was introduced around 1810 and continued to be used after the development of the two-part mold, which occurred in 1840 (Lorrain 1968:38, 40). One fragment of clear pressed glass was also recovered from this location. The fragment appeared to be fire polished which would date it post-1850 (Lorrain 1968:39); however, evidence of fire in the area makes this uncertain. A partial Califig Syrup bottle was recovered north of the wall. This lettered panel bottle dates to after 1867 (Lorrain 1968:40). The remaining artifacts date from after 1850 until essentially modern times.

The slate fragments recovered north of the octagon wall may represent fallen roofing material. The fact that these fragments were located outside the wall rather than inside provides some support for the argument.

The numerous animal bone represented seems to reinforce the assertion that the area was used for refuse deposit after milling operations were abandoned. The articulated remains of a single squirrel were found in the area south of the wall foundation. The articulated condition of the squirrel indicates that the animal either died there or was for some reason buried, however, a burial pit was not recognized during excavation. Some of the other faunal material could represent subsistence remains associated with the milling operations, however this is uncertain because of their disturbed context.

The boiling/curing-house complex bears little resemblence to Spalding's description other than being located near the millhouse. The structure is presently used for offices by the Georgia Department of Natural Resources, and has apparently undergone considerable modification since it was originally constructed. For this reason the area east of the building was probed to determine the existence of additional structural features which would support Spalding's descriptions. The probing results were negative.

The remaining recorded structure was not mentioned in Spalding's accounts. The remains of a tabby structure 31 feet wide and 56 feet long were located adjacent to Post Office Creek. This building was aligned perpendicular to the other structures and was apparently associated. The

building may have been a storage-house/dock facility for the processed cane products. The presence of numerous slate fragments around the structure suggests the roofing material.

The only other sugar works site archaeologically investigated is the ruins of the Elizafield Plantation located 15 miles north of Brunswick, Georgia, near Darien (Ford 1937). The sugar works here consisted of an octagonal mill-house and a T-shaped boiling and curing house. Unlike Spalding's works, the mill-house at Elizafield may have lacked a circular inner wall and a foundation for the inclined plane (Ford 1937:195). The upper story of the mill was evidently supported by short tabby walls extended from the octagon wall towards the interior of the mill-house.

Many of the sugar processing facilities were still present at the Elizafield site when Ford visited it in 1934. The boiling-house contained the fire grate and two vats, probably clarifying vats. One of the vats was oval-shaped with a tabby floor. This feature seems to resemble the stone and mortar, plastered floor construction located in the mill-house at Spalding's works. The mill foundation was also defined at Elizafield. It was constructed of tabby and closely resembles the mill machinery foundation at Spalding's works. Debris possibly associated with milling operations was recovered at the site, including hand-wrought nails, nuts, and bolts. The cast-iron rollers and gear rack of the mill were also located (Ford 1937: 208-213).

It is difficult to determine if many of the artifacts reported from the site were temporarily associated with the sugar works. A portion of the material probably post-dates mill operations, for Ford notes (1937:196-197) that a tabby floor had been constructed over the interior features of the boiling-house, suggesting the structure had been put to some other use, perhaps as a dwelling.

## CONCLUSIONS

Production of sugar and molasses at Spalding's sugar works began between 1806 and 1813 in response to unstable rice and cotton markets. The cultivation, harvest, and processing of cane was carried on without conflict with rice and cotton production, and unlike rice and cotton the sugar market was relatively stable and protected by a stiff import duty. This allowed the planter to supplement his fluctuating rice and cotton income with a predictable and profitable income from his cane crop.

The sugar market remained stable until the import duties were lowered in 1832. This, combined with deflated foreign sugar markets and a rise in cotton and rice prices, led to the abandonment of milling operations on many estates, and probably also marked the close of Spalding's works. The artifacts associated with the site generally support this date. Most of the artifacts recovered were post 1850 in origin. Those dating before this time were probably discarded with the later items.

Further, most of the material (including early items such as the hand-painted overglazed porcelain) was associated with the rubble of the fallen tabby walls, indicating they were deposited after milling operations had ceased. The mill-house area was in all probability used as a garbage dump beginning shortly after milling operations had been suspended.

Excavations in or around the other structural remains at the site would certainly provide additional information on sugar operations, including for example, details of subsistence and material culture associated with the slaves who operated the sugar works. Based on the results of the present investigation, sugar operations continued for at least 19 years at the site. Certainly material associated with the individuals who operated the works was lost and discarded during this period.

The structural remains of the site generally support Spalding's descriptions, with a few important exceptions. His published reports do not mention the existence of a storage-house/dock structure. This is perhaps because his writings focused on processing operations and facilities rather than facilities important once processing was completed. Also the door-way of the mill-house was much narrower tha stated in his description, and the boiling/curing-house complex did not correspond to his descriptions. It is likely that Spalding was describing ideal sugar operation facilities, modifying the inadequacies of his own as needed.

# THE SPANISH ON SAPELO

By Lewis H. Larson

In Havana, on March 20, 1742, Antonio de Arredondo completed his *Demonstracion Historiographica del Derecho de España a Nueva Georgia* in an attempt to establish, "... the right that the Catholic King has to the territory in the Provinces and Continent of La Florida, held today by the British King under the name New Georgia" (Bolton 1925:223). In June of that year Arredondo was to attempt to press the claim of his sovereign while acting as Chief Engineer of the Spanish expedition mounted to drive the English from the Georgia coast. The Spanish failed in this effort during the Battle of Bloody Marsh on St. Simons Island on July 18, 1742. Thus ended over two hundred years of Spanish control of the coastal area of Georgia, an area known as the Province of Guale.

Sapelo Island had long played a role in the Spanish control of the coast as they sought to protect their sea routes between Mexico and Europe and to Christianize the Indians of *La Florida.* However, Sapelo, like the other parts of the Georgia coast, was never the scene of a serious colonial undertaking on the part of the Spanish. No New World *criollos* were settled in the Province of Guale, much less immigrants from Spain itself. Instead of the farmsteads of colonists, Sapelo was the locale of one or more of the missions established in order to, "... convert the pagans to the adoration of the Holy Cross and to the subjection of Spain" (Bolton 1925:245). The island was probably the site of a mission at least as early as 1597, the year of a major rebellion by the Guale against the Franciscan priests who had been in the Province preaching the Holy Faith for over twenty years.

Father Luis Gerónimo de Oré came to Florida in 1614 and again in 1616 to conduct visitations to the Order on instructions of the Minister-General of the Franciscan Order. Following his 1616 visit, Father Oré wrote a history of the 1597 revolt and of the Franciscans who were martyred during the first few days of its bloody action.

Father Oré's *Relación* apparently was based on interviews with those Spanish who were involved in the initial events of the uprising and in the subsequent incidents leading to the restoration of Spanish control. Primary among the informants of Oré may well have been Father Avila, the only Franciscan in the entire Province of the Guale to survive the attacks on the missions and their priests. Father Avila was taken captive, and although he was subjected to cruelty and indignities he persevered and was ransomed after several months. In addition to the informants, Oré certainly had access, in the presidio at St. Augustine, to those government and church records that related to the Guale Revolt.

In his account of his visit, in December 1616, to the Province of

Guale, Oré tells us that on his return from Santa Isabel, an inland mission, "... we descended by a larger river than the Tagus in canoes to the people of the land of Guale. We visited the towns and the six priests in the convent of San José de Zápala where [the Indians] had martyred one of our five martyrs" (Geiger 1936:130). The river, larger than the Tagus, down which Oré came to Guale was probably the Altamaha, the only river that would have carried the priest to or near Sapelo Island.

It would seem that the clergy of San José de Zápala served a number of towns in the area of the *doctrina* or mission. Perhaps all of these towns or *visitas* were on Sapelo, but then they might well have been on the mainland or on some of the larger islands that lay surrounded by marsh between Sapelo and the mainland. In any event, the Oré statement offers a strong argument that Sapelo was the site of a mission at the time of the Guale Revolt in 1597 and that by the time of the 1616 visit of Oré the mission had been reestablished and was an important center for Franciscan activity in the Province of Guale, with six priests in residence.

San José de Zápala (it is also cited in the documents as Sapala and Çáala), presumably on Sapelo Island, continued to be listed as a Guale mission up to 1680. The abandonment, about 1686, of Santa Catalina de Guale on St. Catherines Island immediately to the north, across Sapelo Sound, probably brought about the desertion of San José at the same time or shortly thereafter. Jonathan Dickinson sighted, ". . . an Indian town called Appataw," but makes no mention of a mission or other Spanish activity located there or in the vicinity as he made his way from St. Augustine to Charleston in December of 1696 (Andrews and Andrews 1945:90). Although the mission of San José is on lists compiled for 1655 (Swanton 1922:322, but with the source unidentified), 1659 (Chatelain 1941:123, from manuscripts by Juan Diez de la Calle in the Biblioteca Nacional, Madrid), 1675 (Wenhold 1936:10, in a letter of Gabriel Diaz Vara Calderón, Bishop of Cuba to the Queen—the list was probably compiled prior to June 1675; a second list of that same year is to be found in Boyd 1948:182, in a letter from Don Pedro de Hita Salazar, Governor of Florida to the Queen and dated August 24, 1675), and 1680 (Chatelain 1941:124, from Archives of the Indies, 54-5-11, dated December 8, 1680). There are no references to the Spanish on Sapelo after 1680, and the statement of Dickinson is the only indication we have of an Indian occupation of the island continuing after that date.

Unfortunately, we are able to identify, by name, but a single priest from what must have been a rather substantial group of religious persons who served on Sapelo during the long history of its mission. That one priest, Father Juan Bauptistas Campaña, is identified at the mission of San José de Sapala during the year of 1675 (Boyd 1948:182). It is of some interest to note that the mention of Father Campaña in the 1675 mission list is accompanied by the only information that we have regarding the

population of a Spanish establishment on Sapelo. Don Juan de Hita Salazar, Governor of the presidio at St. Augustine and compiler of the mission list observes that at San José, "In round numbers it may have, between men, children and women and pagan, fifty persons" (Boyd 1948:182).

I will not attempt here to describe Guale culture or the effect of Spanish control upon it. I have made this effort elsewhere (Larson 1969 and 1978) and I have little to add to those summaries at this time.

The extended archaeological survey program carried out from 1974 through 1979 on Sapelo by West Georgia College has located a number of sites on the island with evidence of the Spanish presence. In all instances, however, the evidence is limited to ceramics. No architectural remains attributable to the Spanish have been defined; nor have there been any metal artifacts found that are recognizably Spanish. The Spanish ceramic types that have been recovered include a limited number of olive jar sherds and a very few majolica sherds. They have been found both on the surface and in excavated test units. In number, these sherds are a meager representation indeed for what appears to have been over one hundred years of mission activity.

The sites where Spanish ceramics have been found are the very largest sites on the island and are those that are characterized by Savannah, Irene, and San Marcos types of aboriginal pottery. These sites include Kenan Field, Bourbon Field, the area north of the Shell Ring, and High Point. In terms of their aboriginal ceramics, soil type, location with respect to the marsh and tidal creeks, and drainage, there are other sites on the island similar to those just named, but there are not Spanish ceramics in the limited surface collections from them. Interestingly, the locations of these sites are largely coincident with the locations of buildings (houses?) shown on the DeBrahm map of Sapelo dated 1760 (Yonge & DeBrahm:1760). While the structures that DeBrahm has shown on his map are in all likelihood the product of settlement that had occurred after the founding of the Georgia colony by Oglethorpe in 1733, they certainly appear to have been placed where there may already have been clearings or old field situations.

Beyond Sapelo, on the adjacent mainland, and on hammocks and on islands in the marsh, other aboriginal sites with Spanish ceramics have been identified (Figure 1). These sites have not only produced olive jar and majolica sherds, but in at least one instance, native Mexican wares, apparently imported by the Spanish, are represented in the sherd collections. The presumed Mexican sherds are from the site on St. Catherines Island. The presence of these Indian sites in the general vicinity of Sapelo (they are in relatively large numbers) suggests that not only was the locale a focus of considerable missionary attention, but that it was also an area with a sizable aboriginal population. Undoubtedly, there was more than one mission in the McIntosh County area during most of the

Spanish Period; in addition to the mission on Sapelo there must have been a mainland mission. The most logical site for the mainland mission would have been on the bluff at the place that was to be occupied by Fort King George. This fort, built by the Carolinians in 1721, commanded access to the interior via the Altamaha River.

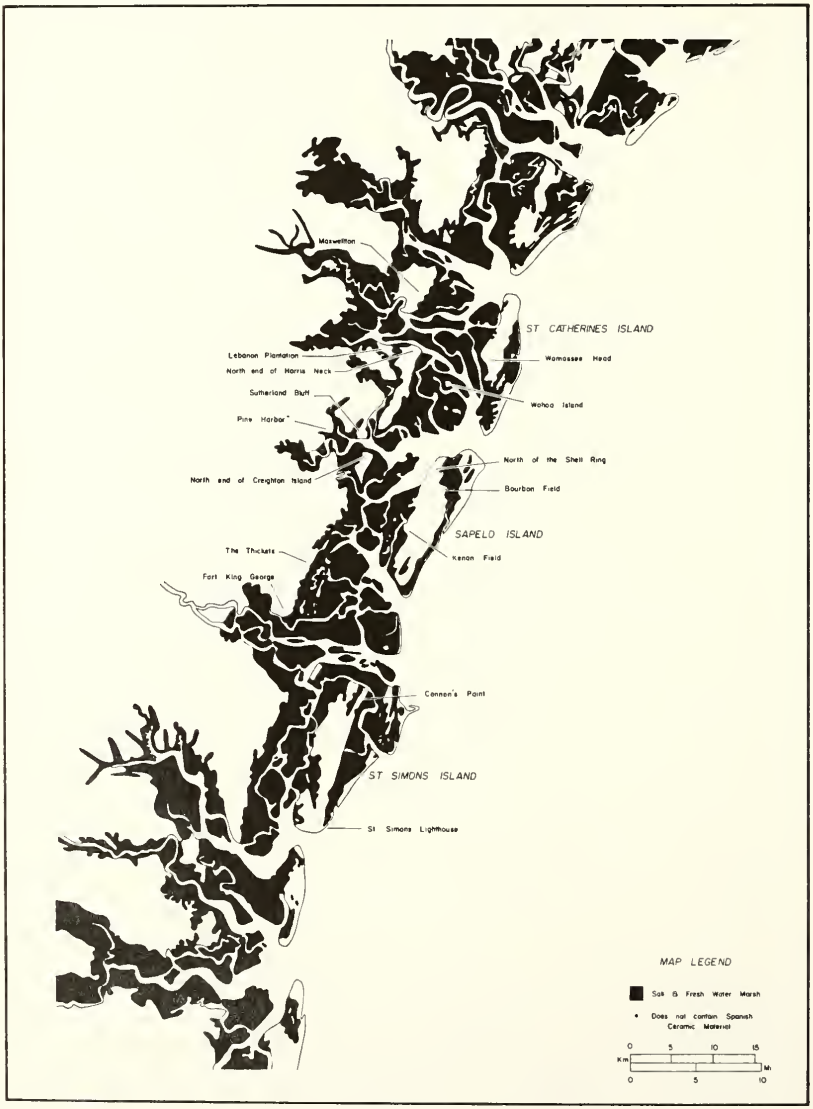



*Figure 1*
*The central Georgia coastal area and the sites of the Spanish Period that have been identified archaeologically.*

Excavations at several of the Spanish Period sites in the tidewater portion of the mainland provide some information about what might be expected to be the cultural characteristics of the Indian occupations in the Sapelo Island area. Presumably, this information enables us to formulate a general, if not a specific, description of the Sapelo sites of the

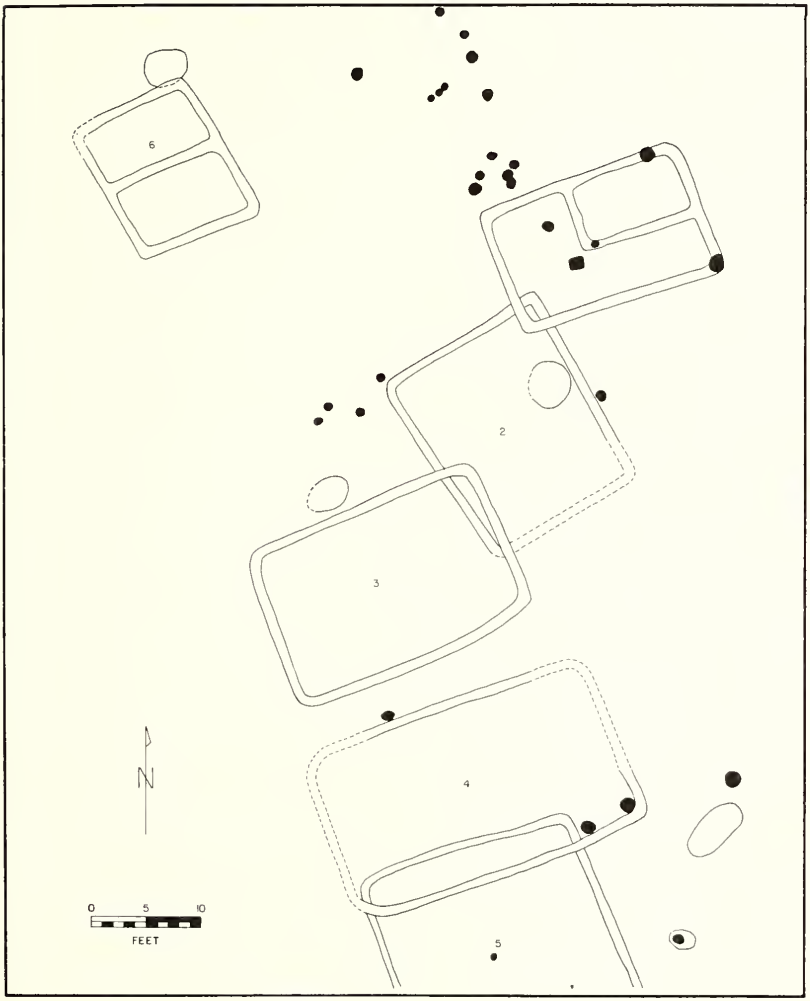



*Figure 2*
*Wall trench outlines of Spanish Period aboriginal domestic structures found at the site on the north end of Harris Neck. The structures are shown in their proper relationships to one another. An apparent uniformity or orientation and alignment suggest residential patterning in the village.*

Spanish Period. Excavations at the site on the north end of Harris Neck (Figure 2) and at Fort King George (Figure 3) provided a number of examples of what are surely domestic structures, in all likelihood houses, from the seventeenth century. These Indian Buildings are not large and all provide unquestioned association of aboriginal sherds and Spanish sherds with the construction features.

The aboriginal houses of the Spanish Period at both the Fort King George site and the site on the north end of Harris Neck utilize closed corner, wall trench construction. The floor plans are characterized by walls that divide the interior space into rooms. Some of these walls partition off corners of the house into separate rooms, others cut across the center of the house creating two equal sized rooms. Entries were apparently located where short walls jut out from the exterior wall line of the house in order to form a covered passage. There do not appear to be any structures that contained interior hearths. This suggests that cooking may well have been carried on out-of-doors, or that perhaps the structures served other than a residential function. Wall trench configurations which appear too small to have formed a house may have had storage functions.

The Pine Harbor site, a site that I presently feel was occupied at the beginning of the Spanish mission activity on the Georgia coast, produced little information on houses. The evidence that we now have suggests that the houses did not employ wall trenches in their construction, but rather used individually set posts. The one set of post holes that were exposed at Pine Harbor is the only evidence for what may have been a house at that site (Figure 4). While many other post holes were found at the site, it was impossible for me to separate out any coherent alignments from the mass of post holes encountered. And although the one set of post holes found at the site that could be interpreted as a structure was buried beneath a shell midden and had never been disturbed, there was, again, no evidence for a hearth to be found on the floor.

There are massive architectural elements from Kenan Field that are associated with Irene ceramics and are probably contemporary, therefore, with the Pine Harbor site and the early phase of the Spanish presence (Crook 1978:173 et seq., 203 et seq.). Unfortunately, the structures to which these elements, large and long wall trenches, belong have not been completely excavated so we do not have a good idea of the nature of the structure, or structures, of which they were a part. They appear to have been either portions of large communal buildings or palisades defining socially significant areas within the town.

Nowhere on Sapelo do we have evidence of architecture that can be attributed to Spanish activities, rather than Indian activity, during the mission period. There is good reason to believe that the structural features excavated by Sheila Caldwell in the early 1950s at the Fort King George

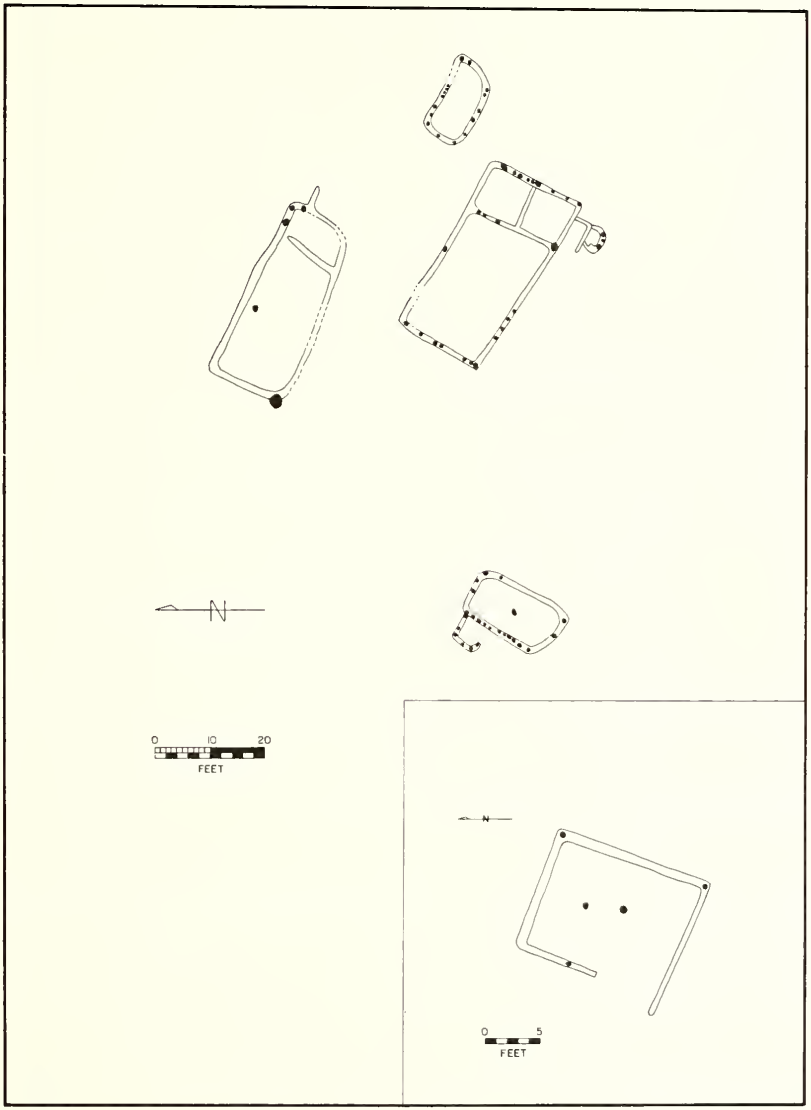



*Figure 3*

*Wall trench outlines of Spanish Period aboriginal domestic structures at the Fort King George Site. The drawing is based upon an incomplete tracing of a field map by Shiela Caldwell, and the scale may be inaccurate. The structure outline shown in the inset was executed by the author in 1966.*

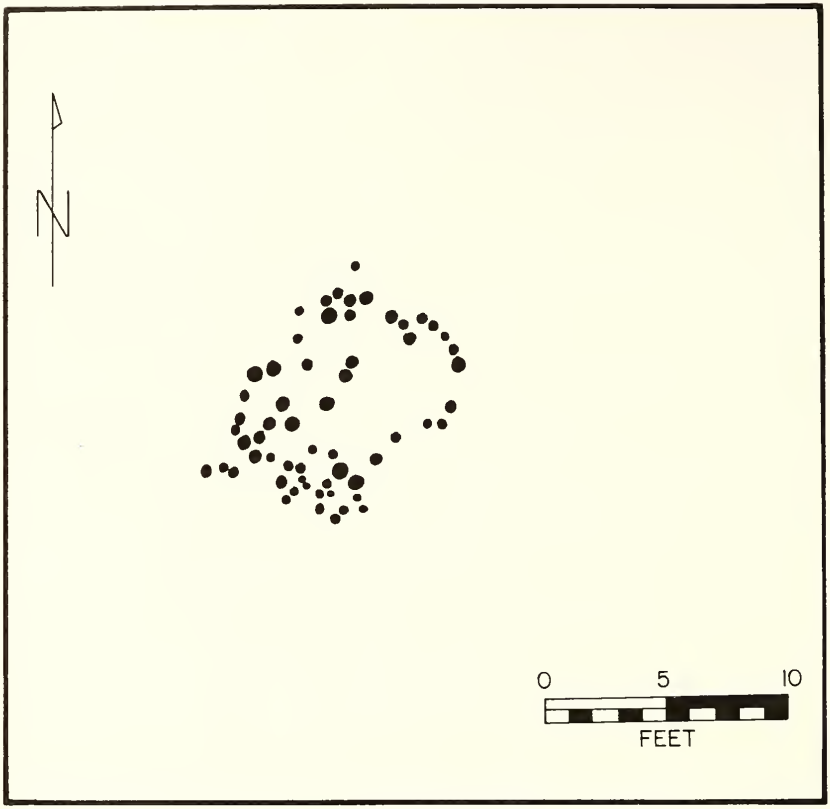



*Figure 4*
*The post hole pattern beneath the northern edge of midden number 5 at the Pine Harbor Site.*

site are the remains of a building, perhaps a mission, built and used by the Spanish (Figure 5). The configuration of the structure and the construction elements all appear to be European rather than Indian. The building features were intruded by the graves dug to bury soldiers who died during the occupation of Fort King George prior to the founding of the Georgia colony. Thus any occupation employing European style buildings would have to have been a Spanish occupation.

Beyond the identification, on Sapelo, of those sites of the Spanish Period we are able to provide little information regarding the nature of these sites. Limited testing at Bourbon Field and at the site north of the Shell Ring indicates that the exploitation of esturine resources was an important subsistence activity. Quantities of oyster, conch, mussel and clam shell, as well as fish bone, characterize the middens of both sites.

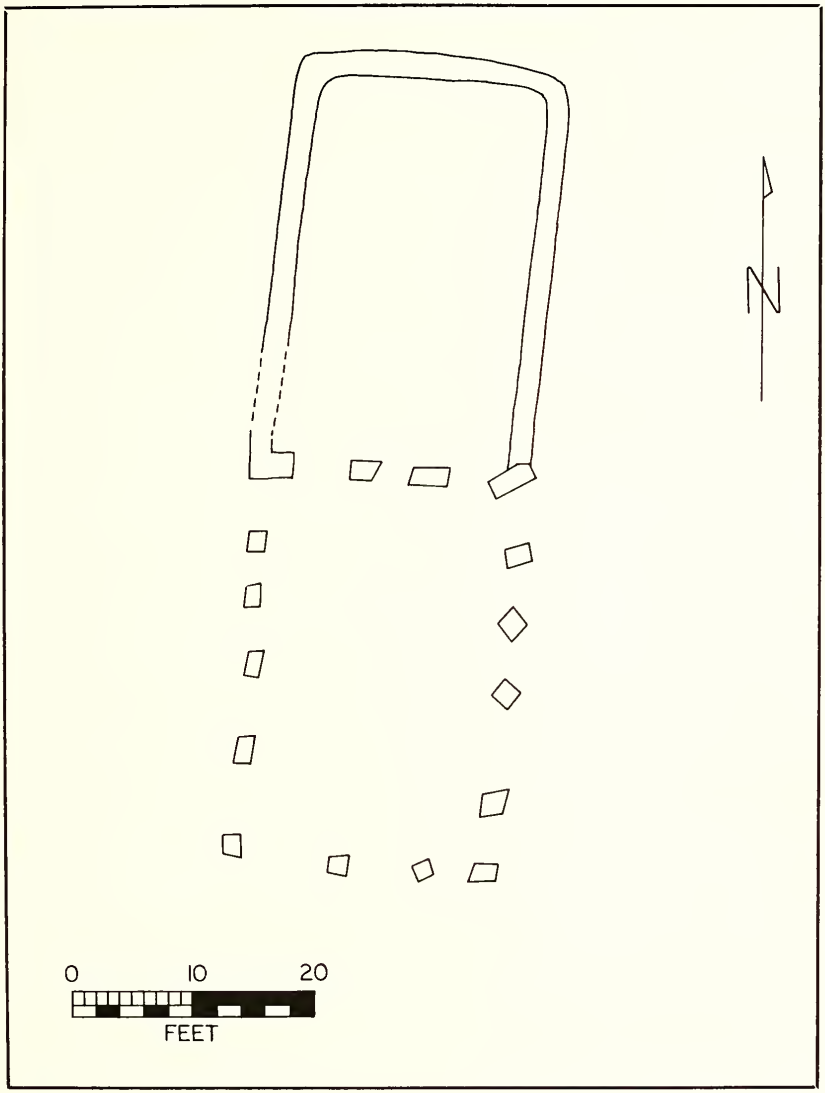



*Figure 5*

*Partial plan of the presumed Spanish structure at Fort King George. This drawing, like figure 3, is based upon an incomplete tracing of a field map by Shiela Caldwell. All of the excavated features probably are not shown, and the scale may be inaccurate.*

Although at the present time the analysis of food remains from these sites is largely incomplete, oyster shell comprises, by far, the most abundant remains of any of the shellfish species. Catfish, if not the largest number of

individual of any fish species included within the midden, are at least a very well represented species. Crook summarizes more complete the available data on the fauna from Bourbon Field in his paper on the southeastern coastal settlement pattern included in this volume.

Plant remains from the midden areas at Kenan Field, Bourbon Field, and the site north of the Shell Ring include the remains of a variety of plant species. The identifications that have been attempted to date indicate that these remains are, without exception, wild species and in all likelihood the product of gathering activity. The absence of cultigens, particularly maize, is surprising and contrasts markedly with other mission period sites in the area. The presumed mission site at Fort King George, the Pine Harbor site, and the site at the north end of Harris Neck in McIntosh County and the Wamassee Head site on St. Catherines Island in Liberty County have all produced charred maize. Peach seeds have also been found at Wamassee Head and on the basis of meager and inconclusive evidence beans may be present at the Pine Harbor site. The absence of cultigens in the mission period middens on Sapelo cannot be explained. It is assumed that a complete analysis of the excavated test samples will reveal this presence.

In 1721, Colonel John Barnwell was sent by the colonial authorities in South Carolina to the mouth of the Altamaha River to construct a fort on the English-Spanish frontier. The journal that Barnwell kept of the enterprise contains an entry of at least passing interest in connection with Indian agriculture on Sapelo during the Spanish period. On July 11, while in route to the proposed site of Fort King George, Barnwell records that,

> I prevailed with the Men to make the best of their way this day, without waiting for tide or vituals, to reach Alabama River [Altamaha River], to put me on board the Sloop, being very ill, wch they did, just putting ashoar at Sapola for Spanish Garlick & to look for figs; they got garlick but the figs were green . . . (Barnwell 1926:196).

Apparently by the time of the Barnwell expedition Sapelo was without an Indian population as well as Spanish missionaries. In any event there were at least the remnants of Indian and Spanish gardens on the island. In his 1760 map, William DeBrahm noted the presence of "oranges and limes garden" at the extreme northeastern corner of the island at a point overlooking the marsh separating Sapelo from Blackbeard Island (Yonge and DeBrahm 1760).

Although the DeBrahm map reference is possibly to cultivation that occurred after the establishment of British authority on the Georgia coast, Barnwell was most certainly referring to garlic and figs that antedate that authority in the area.

It is to be expected that the archaeology of the mission period on Sapelo would produce evidence of Spanish-introduced domesticated

plants as well as the native American cultigens. Beyond peaches, the pits of which provided solid archaeological evidence of their presence on St. Catherines, it is difficult to anticipate what other plants derived from pre-British European sources might be found on Sapelo.

In summary, there is no doubt that the Spanish were present and exercised dominion over Sapelo Island during the more than one hundred years in the sixteenth and seventeenth centuries when the Franciscan missionaries preached in the Indian towns of the Province of Guale. The meager documentary evidence from the period argues for the Spanish occupation of Sapelo. The archaeological evidence, equally limited, provides solid support for that argument. The archaeological data need to be expanded however, and the nature of the Spanish presence needs to be more carefully defined. The chronological framework also should be refined more critically.

Only more fieldwork employing extensive testing can provide the data necessary to site definition and chronological refinement. Because it was relatively underdeveloped in the past and is presently protected from the destructive development that currently characterizes much of the coastal area, Sapelo Island is perhaps the most promising area for the investigation of Spanish occupation on the Georgia coast. It is to be hoped that work will continue and that many of the questions concerning the mission period will be answered by this work.

# A MODEL FOR BARRIER ISLAND SETTLEMENT PATTERN*

By Alan E. McMichael

In a paper presented before the thirty-second Southeastern Archaeological Conference the author summarized the results of two seasons of archaeological survey of Sapelo Island, Georgia (Simpkins and McMichael 1976). The paper presents a model for barrier island settlement pattern based on a probability sample obtained on Sapelo Island and suggests its application to other barrier islands on the Georgia coast.

The term settlement pattern is used here in the sense of Trigger's (1968:54-55) "macrosettlement patterns." Trigger distinguishes between the internal layout or patterning of a settlement, the microsettlement pattern, and the size, nature, and location of settlements on the landscape, i.e., the macrosettlement pattern. The terms are derived from Chang's (1968:6-7) distinction between the sociocultural "microstructure" and "macrostructure" of communities. Sears (1961:226) has invoked a similar dichotomy. For the most part, the macrostructure of a settlement pattern reflects the articulation of technology and environment whereas the microstructure is more often determined by factors of kinship or political organization, although as Trigger (1968:61-62) points out, ecological and sociocultural factors are not totally independent.

Sapelo Island (Figure 1) is one of six barrier islands on the Georgia coast composed of Pleistocene sediments with Holocene additions (Hoyt and Hails 1967). The barrier islands are composed of parallel rows of successive beach ridges which were isolated by submergence during the Holocene. The beach ridges have undergone erosion, losing their dune-like relief, to become sand ridges, uniformly high and level. The lagoons were partially filled with eroded sands and exist today as sloughs, elongate fresh or brackish water swamps paralleling the ridges (Figure 2).

For the first two field seasons on Sapelo, archeological survey was informal. No systematic coverage plan was employed other than a determination to survey as much of the island as possible. A considerable amount of ground was covered in this fashion and several large sites were discovered (Figure 3). An apparent relationship between sites and areas of certain topography, soils and vegetation led me to state at the SEAC conference in Gainesville:

---

*Reprinted by permission from The Florida Anthropologist, 1977. Vol. 30, No. 4. Pp. 179-195.

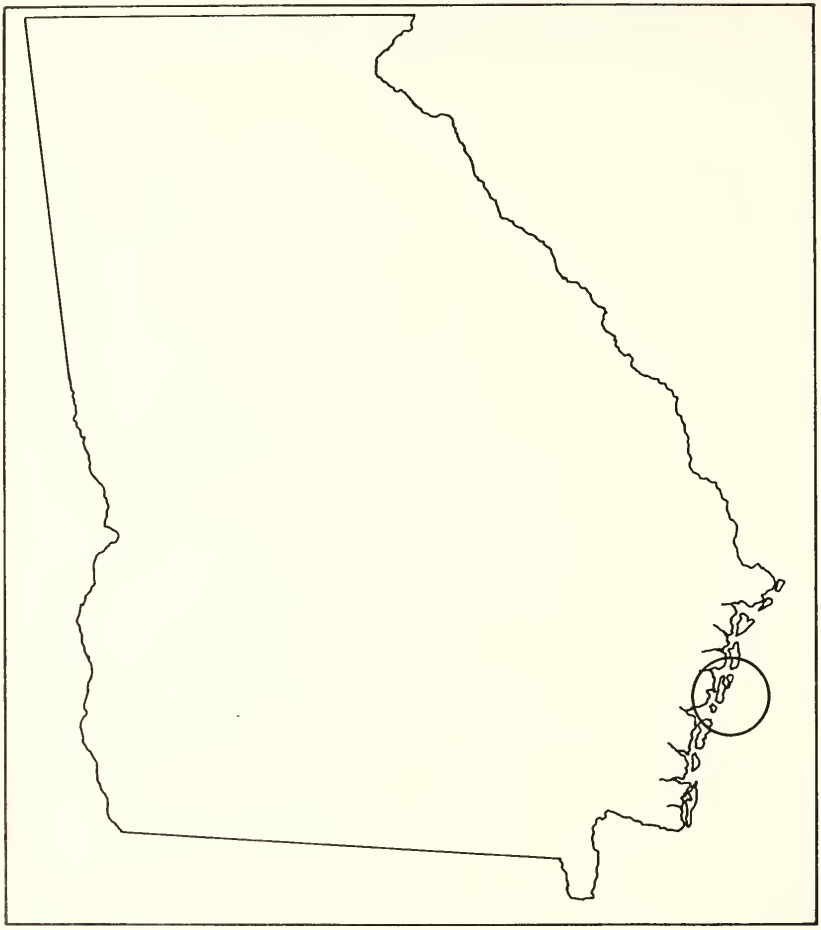


*Figure 1*
*Location of Sapelo Island, Georgia.*

. . . . habitation sites on the island appear to be strategically located with respect to natural features rather than uniformly spread over the island or occurring purely at random.
. . . . sites appear to be concentrated in areas contiguous to the marsh, i.e., the western side of the island and the northeast corner.
. . . . within these areas, sites tend to occur closest to points at which tidal creeks approach the shore. (Finally,) . . . . sites are encountered most frequently on the perimeter of the island, those areas of greatest elevation. Sites appear to be lacking in the low-lying interior (Simpkins and McMichael (1976:97).

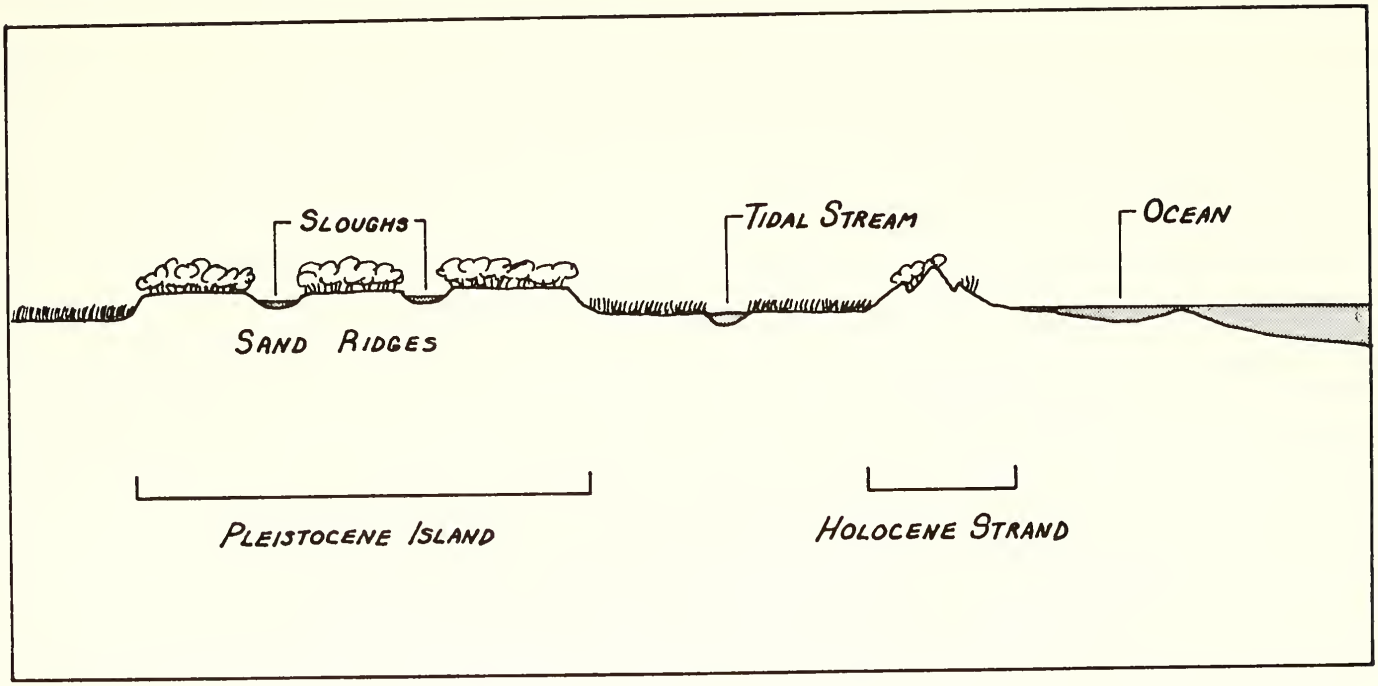



*Figure 2*
*Generalized east-west cross-section of a barrier island. Not drawn to scale.*

Informal survey had indicated that archaeological sites are difficult to detect unless the surface of the ground is exposed. Further, while with only two exceptions, all of the sites located were on high ground, this

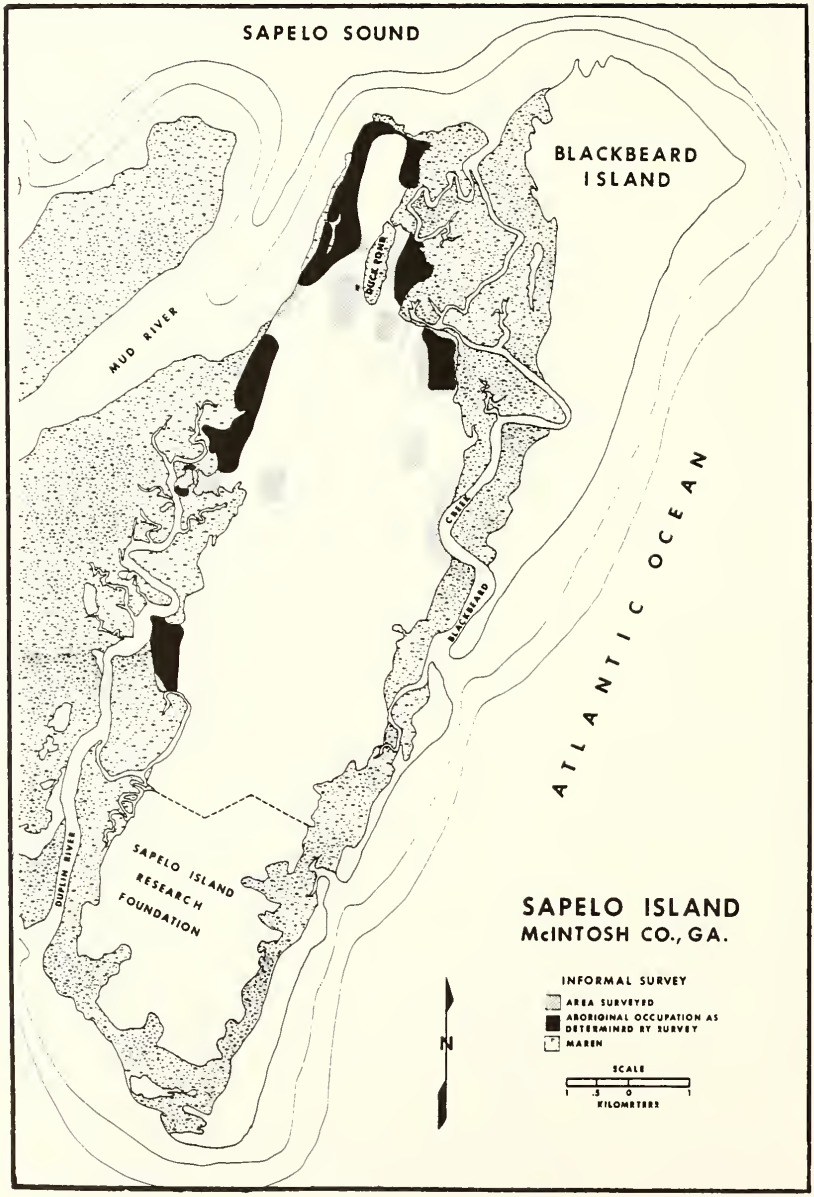



*Figure 3*
*Informal survey, Sapelo Island.*

was also the area which had been most intensively surveyed. These problems, combined with a desire to test the hypothesis stated above, prompted me to employ a stratified random sample combined with systematic subsurface testing.

In stratified sampling the research area is ". . . subdivided, or stratified, on the basis of some prior knowledge, into various groups called *strata.* The purpose of stratification is to insure that sampling units are selected from each stratum, and, therefore, that the full variability that exists within a survey area is expressed in the sample" (Mueller 1974:32). In this case, stratification also serves to facilitate testing relationships of archaeological sites to each stratum.

Basic to any survey report is the investigator's definition of a site. For the purposes of this discussion a site is defined as any evidence of aboriginal activity with no differentiation as to chronological position. Unless augmented by test excavation, archaeological survey is seldom suitable for addressing changes in settlement patterns through time, due to the tendency of surface collections to emphasize the later components of multicomponent sites. In this regard, the settlement model presented here may differ from Trigger's macrosettlement pattern in that Trigger (1968:54-55) and Chang (1968:3) define settlement patterns as consisting of contemporary settlements. A settlement model is advanced here for the entire range of prehistoric occupation on Sapelo Island.

The target population (Mueller 1974:28) for the sample consisted of all of Sapelo Island owned by the State of Georgia as of summer, 1976. No areas of marsh were included in the population, nor were any of the hammocks with the exception of Moses' Hammock which is connected to the island by a causeway. The south end of the island, under private ownership at the time, was excluded, introducing an arbitrary boundary into the sampled population (Mueller 1974:28).

Environmental stratification was based on three variables: elevation, soils, and vegetation. Rather than test each variable independently, they were combined to create five discrete environmental zones, following the suggestions of Blalock (1972:400-401) and Mueller (1974:65).

Soil boundaries as mapped by the Soil Conservation Service (Byrd et al. 1961) were transferred onto U.S.G.S. topographic maps which show elevation in five foot contours (1.5 meters). A false color infrared transparency of Sapelo was then projected onto the map and gross, observable differences in vegetation were delineated. The three variables coincided to a considerable degree, as would be expected given the interrelationship of elevation, soils and vegetation. Where the boundaries of the three variables coincided, they were bundled together to form the boundaries of the sampling strata. Where a marked divergence occurred between boundaries, a single variable was emphasized, usually soil type because of the great amount and detail of information contained in the soil survey.

Stratification resulted in five discrete environmental zones which account for practically the full range of variability on the island and are easily recognized in the field by an untrained observed. These zones, which correspond in size and scope to the microenvironments of Coe and Flannery (1964), were chosen as the sampling strata (Figure 4).

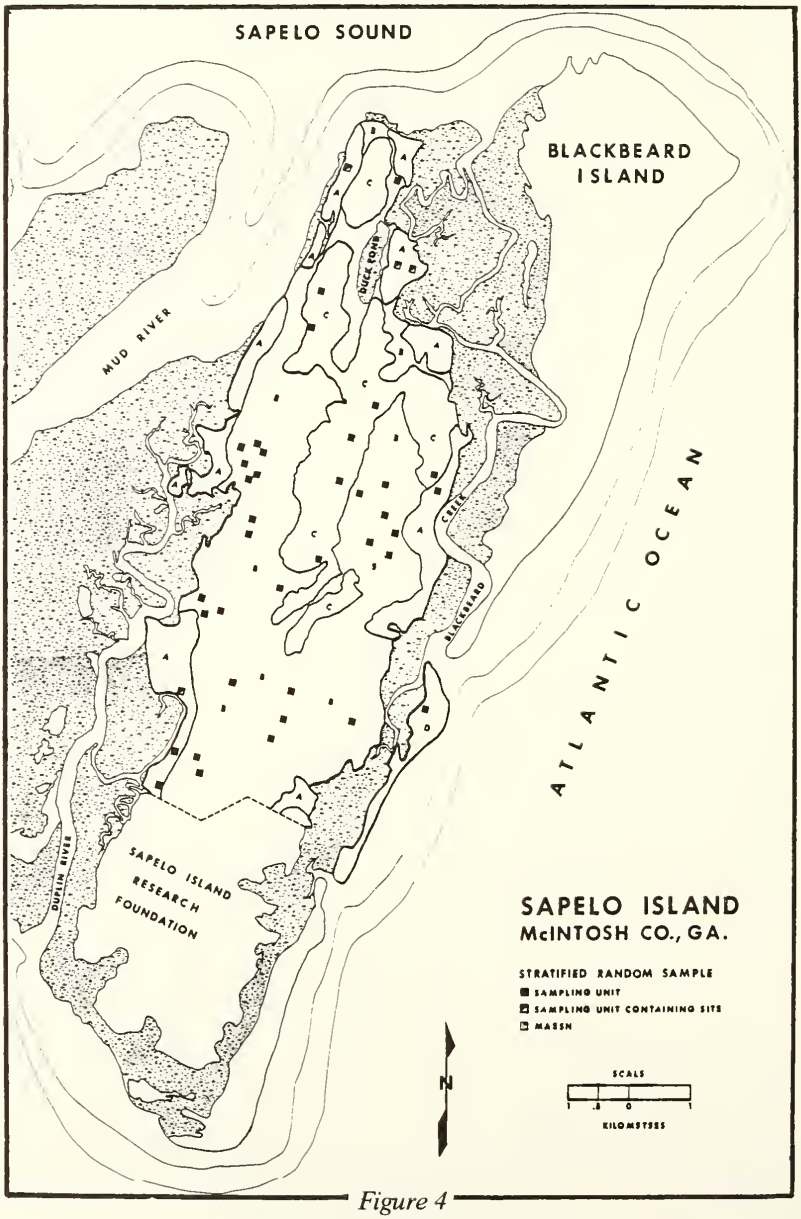



*Figure 4*
*Formal survey, Sapelo Island.*

## THE SAMPLING STRATA

Stratum A consists of a series of relict Pleistocene beach ridges which appear today as elongate sand ridges of relatively high elevation. Elevations range from a low of about seven feet (2 meters) to a maximum height of sixteen feet (5 meters) with the majority of the stratum lying between the ten (3 meter) and fifteen foot (4.5 meter) contour lines.

Soils are a combination of several associated sandy series commonly found on level or gently sloping sand ridges. They range from poorly to excessively drained and are generally friable. The series in order of abundance within Stratum A are: Ona, Scranton, Palm Beach, Kleg and Galestown. Limited areas of Leon fine sand, a poorly drained soil, are also found in Stratum A (Byrd et al. 1961).

Vegetation within Stratum A is described as the Maritime Live Oak Forest (Johnson et al. 1974:44), an association dominated by live oak *(Quercus virginiana)* and Laurel oak *(Q. laurifolia)* with smaller amounts of *Magnolia* spp. and pine *(Pinus* spp.) laced with a network of grape *(Vitus* supp.) and *Smilax* vines.

The dense live oak canopy limits the amount of sunlight reaching the ground, resulting in a sparse overstory and understory. Dominant species in the overstory include red cedar *(Juniperus silicicola),* holly *(Ilex opaca),* mulberry *(Morus rubra),* and yaupon *(Ilex vomitoria),* with small amounts of redbay *(Persea borbonia),* sweetbay *(Magnolia virginiana),* hickory *(Carya,* spp.) and cabbage palm *(Sabal palmetto).* Important species in the understory include wax myrtle *(Myrica cerifera),* gallberry *(Ilex glabra),* saw palmetto *(Serenoa repens)* and, in areas of greatest sunlight, three species of blueberry *(Vaccinium* spp.) plus various grasses and sedges.

Stratum A consists largely of two sand ridges, one extending along the western edge of the island and a second along the eastern edge. While Stratum A is rather homogenous, its two main components are not contiguous but are widely separated, a condition essentially unique to Stratum A. Further, the east ridge faces the extensive Duplin estuary and the mainland beyond the east ridge faces a thinner stretch of marsh, a Holecene strand, and the Atlantic Ocean. This contrast could have been manifest in terms of aboriginal subsistence technology.

In order to increase the homogeneity of the strata and to prevent clustering of Stratum A sampling units on only one side of the island, Stratum A was subdivided into A, the west ridge and A', the east ridge.

Stratum B is composed of a large two-pronged slough system, extending the length of the island parallel to the sand ridges. Elevations are low, generally less than ten feet (3 meters), with substantial areas occurring at less than five feet (1.5 meters). Soils consist almost entirely of a single type, Rutledge fine sand, with smaller amounts of St. Johns fine sand. Rutledge soils are very poorly drained, extremely acid soils occur-

ring in drainageways and bays (Byrd et al. 1961). Several areas within Stratum B appear to be flooded year around.

Natural vegetation in sloughs varies according to age and degree of sedimentation, undergoing successional change from an aquatic plant community (Georgia Department of Natural Resources 1975:73), to a grass-sedge savannah (Braun 1967:286), and finally to a forested swamp (Johnson et al. 1974:51).

A map of Sapelo prepared in 1760 by Yonge and DeBrahm and now on file at the Georgia Department of Archives and History shows the slough system as a "large savannah of fresh water" between the sand ridges.

In the 1920s Howard Coffin drained the sloughs, drastically changing the vegetational communities. An elderly resident of Sapelo stated that the island was *"wet, wet, wet"* before Coffin drained the sloughs. The informant described an area that today is covered by a mixed pine-hardwood forest as a treeless plain, extremely wet, and completely planted in rice. The water was fresh and potable.

Stratum C combines the high elevations of Stratum A with the poor drainage of Stratum B. Elevations, for the most part, are between ten (3 meters) and fifteen feet (4.5 meters). Soils within Stratum C are of a single type, St. Johns fine sand. St. Johns soils are poorly drained to very poorly drained, and are formed in sands on low marine terraces (Byrd et al. 1961:19).

Stratum C is dotted with numerous ponds, bays and swamps. As in Stratum B, water was often encountered within 40-50 cm. of the surface. Although Stratum C appear to represent a Pleistocene beach ridge flanked by low lying flats, its inland location would result in interior drainage which could account for the high ground water level. St. Johns soil contains a hardpan layer within one meter of the surface, which could also contribute to the poor drainage (see Braun 1967:286).

Vegetation consists basically of a light to medium understory of slash *(Pinus elliottii),* pond *(P. serotina),* and longleaf pine *(P. palustris)* exhibiting variation according to drainage. Wet or dry, the understory is dominated by saw palmetto with monotonous regularity.

Stratum D is the Holocene strand, separated from the island proper by a narrow salt marsh lagoon. The Strand exhibits high relief, elevations ranging from 0 to fifteen feet (4.5 meters). Soils are fine quartz beach sands with varying amounts of small shell fragments (Byrd et al. 1961).

The strand vegetation has been characterized as the salt spray community because of the limiting effects of salt spray, constant winds, and extremes of sunlight and temperature on the vegetation. The strand exhibits a floristic zonation extending inland from the beach. The beach is colonized by sandspur *(Cenchrus tribuloides),* saltwater cordgrass *(Spartina patens),* and sea rocket *(Cakile* spp.). The foredunes support

sea oats *(Uniola paniculata), Yucca* spp., prickly pear *(Opuntia* spp.), and yaupon. The stabilized backdunes support a dense, ingrown canopy of live oak, red bay, wax myrtle, *Sabal palmetto* and saw palmetto.

## SAMPLING DESIGN

Within the strata, simple random sampling was employed. A grid was superimposed over the map, oriented along the long axis of the island. Each grid unit represents a square on the ground 120 meters on a side.

The sampling units were numbered and a sample was drawn from within each stratum by consulting a table of random numbers (Blalock 1972:table B). The relatively small sample size precluded the necessity of sampling with replacement (Blalock 1972:396). The sample is proportional in that a sampling fraction of 1/44.82 was employed for all five strata. Thus the percentage of each stratum tested is proportional to the percentage of the sampled population contained within each stratum (Blalock 1972:399-401; Mueller 1974:32-33).

The number of units to be tested within each stratum was computed to two decimal places, totalling 39.98. These figures were rounded off, reaching a new total of 41 units. Assuming adequate testing of each unit, sample size is slightly over 2 percent.

The units were located in the field with the use of a Brunton compass and a 50 meter chain. Starting from some feature recognized on the topographic map, a compass line was projected to the nearest corner of the unit. Once at the corner, a compass line was projected along the diagonal of the unit. The line was cut through and ten postholes were placed at seventeen meter intervals. The postholes were dug to a depth of one meter and the stratigraphy recorded.

The advantages of subsurface testing must be weighed against the additional time involved. The necessarily limited number of postholes had to be placed in a manner that would maximize their effectiveness and allow for adequate coverage of a unit 14,400 square meters in area. Testing only along the diagonal is a logistic compromise but was considered the most efficient subsurface testing technique possible in the limited time available.

## RESULTS

The results of the test were rather dramatic. Out of four units tested in Stratum A, two contained sites. Out of three units tested in Stratum A', two contained sites. No sites were found in any of the 37 remaining tests in Strata B, C, and D. All four sites encountered were shell middens. Irene and San Marcos complicated stamped sherds, along with one unidentified grit tempered plain sherd, were found in two of the sites, indicating a late Mississippi period to proto-historic or historic occupation.

A chi square test was employed to determine the probability of such

a site distribution occurring by chance alone. Because several of the expected frequencies were low, Yates' correction for continuity was applied. A null hypothesis, stating that there are no significant differences between the strata, was tested. A chi square statistic of 17.24 with four degrees of freedom resulted. The null hypothesis of no difference cannot be accepted even at a level of significance of .001 (Table 1).

When Strata A and A' are combined and tested against the other strata an almost identical chi square statistic results. For the remainder of this discussion, Strata A and A' will be discussed as one.

observed frequencies

| Strata | + | - |
|---|---|---|
| A | 2 | 2 |
| A' | 2 | 1 |
| B | 0 | 26 |
| C | 0 | 7 |
| D | 0 | 1 |

$\chi^2_c$

17.24 at 4df

p = < .001

+ = positive indications of sites

- = negative indications of sites

*Table 1·*
*Chi square analysis of site distribution. Yate's correction for continuity applied.*

The results of informal and formal archaeological survey on Sapelo Island indicate that aboriginal occupation was limited to the Pleistocene sand ridges. The ridges offer elevation and the best compromise between poor and excessive drainage that is to be found on the island. This is not to imply that the aboriginal inhabitants never ventured out of Stratum A. The other strata could well have been exploited for particular resources and, in fact, subsistence oriented, task specific sites may be found outside

of Stratum A. However, while there is no reason to doubt that Strata B, C, and D were exploited, they do not seem to have been suitable for residential use.

It is important to note that sites are not continuous throughout Stratum A. Sites do appear to be concentrated in areas contiguous to the marsh, particularly where tidal streams approach the shore. This may indicate the importance of the estuary to subsistence.

## APPLICATION TO OTHER BARRIER ISLANDS

Considering the geological similarity of barrier islands, it is predicted that similar settlement patterns are manifest on all of Georgia's Pleistocene barrier islands. Application of the Sapelo model can be made with less assurance to Pleistocene marsh islands and perhaps not at all to Holocene islands. Supporting evidence can be drawn from several reports of island surveys, many of which unfortunately have not been published.

Archaeological survey on Ossabaw Island, Georgia has been reported by DePratter (1974) and Pearson (1977). In contrast to the Sapelo survey, the Ossabaw survey included a large Holocene formation. On Sapelo, Holocene sediments included within the target population are limited to Stratum D, the narrow strand. The Holocene formation included in the Ossabaw survey is comparable to Blackbeard Island, immediately northeast of Sapelo.

The Pleistocene portion of Ossabaw consists of sand ridges composed of Lakeland and Chipley soils. These are flanked by more poorly drained flats composed of Olustee and Leon soils, similar to Stratum C soils on Sapelo. Between the ridges lie the sloughs, composed of Ellabelle soils, plus stretches of high marsh described as Capers soils and fresh water tidal marsh. Soils on the Holocene formation are described as belonging to the Kershaw-Osier complex. The strand is composed of Coastal beach sand (Wilkes et al. 1974).

DePratter's (1974) site map shows 116 aboriginal sites on Ossabaw, excluding the outlying hammocks. When these sites are plotted on the soil map, 58 sites, or 50% appear to be located on sand ridges in Lakeland or Chipley soils. Eighteen sites, 16%, appear to be located on flats adjacent to the ridges on Olustee and Leon soils. Fourteen sites, 12%, appear to be located in or immediately adjacent to sloughs, on Ellabelle soils. Twenty-six sites, 22%, appear to be located on Holocene ridges on Kershaw-Osier soils.

Half the sites located in or near sloughs appear also to be located in immediate proximity to the marsh. Although 26 sites are located on Holocene sediments, no sites are reported from the strand or "beach front" (Pearson 1977:69). It would appear then that site distribution on Ossabaw resembles the model presented here, i.e., the majority of sites are located on the Pleistocene sand ridges with fewer sites reported on the poorly

drained flats, few sites reported in the sloughs, and no sites reported on the strand.

Pearson (1977) has analyzed the environmental factors influencing settlement during the Irene phase on Ossabaw. Known Irene sites were arranged in a site size hierarchy generated by cluster analysis. Site frequencies were then cross tabulated by size class, forest communities, soil types, distance from the marsh and distance from the nearest tidal stream. These environmental variables were quantified by ranking them in order of their assumed importance to aboriginal settlement (Pearson 1977:65-98).

The results indicate that the larger Irene sites are more often associated with a "Mixed Oak-Hardwood" forest community and well drained soils, i.e., Lakeland and Chipley. Also, these large sites are usually within 100 meters of the marsh and frequently within 200 meters of a tidal stream. As site size decreases, there is decreasing correlation with "desirable" environmental variables (Pearson 1977:tables 1-7). Pearson (1977: 97-98) interprets with variation as indicating functional differences between size classes: "A decrease in site size corresponds to a selection for location in areas of decreased environmental value. This is interpreted as indicating increasing exploitive specialization as site-size decreases with a corresponding decrease in a site's functional variability."

Lakeland sand and Chipley find sand, on which the majority of large Irene sites occur, are formed on Pleistocene sand ridges (Wilkes et al. 1974:15, 23). The poorly drained soils flanking the ridges and in sloughs tend to contain fewer and smaller sites. The environmental variables associated with the largest sites, i.e., sand ridge soils, mixed Oak-Hardwood forest, proximity to marsh and proximity to tidal streams, represent the variables which constitute Stratum A on Sapelo Island.

A recent survey of Cumberland Island, Georgia, has been reported by Ehrenhard (1976). Site distribution on Cumberland seems generally to fit within the model presented here with some interesting exceptions:

> The physical location of prehistoric cultural remains on Cumberland Island are, as on the mainland, along the edge of the marsh. The sites begin at about the 2 meter contour line and extend inland.
>
> . . . Sites more often than not, are located within the oak-palmetto or oak-pine forest community (Ehrenhard 1976:43).

The majority of the sites appear to be located on Lakeland, Chipley, or Leon soils with some sites extending onto adjacent poorly drained soils. Six sites are located entirely on poorly drained soils and one site, 9 Cam 36, is located on the north end of the Holocene strand.

DePratter (1973) accomplished almost total coverage of Black Island, Georgia, A Pleistocene marsh island west of Sapelo. Six shell midden sites were discovered on the island and two adjacent hammocks.

DePratter noted the correlation between sites and Ona and Scranton soils. No sites were found in areas of St. Johns soils. The site bearing areas on Black Island fit the parameters established for Stratum A on Sapelo. All sites reported are located near the edge of the marsh.

Portions of Skidaway Island, Georgia, another Pleistocene marsh island, were surveyed in the course of cultural resource assessment. Initially the perimeter of the island was surveyed revealing twenty sites (Caldwell 1970). Of these, seventeen appear to be located on sand ridge soils, i.e., Lakeland sand and Chipley fine sand. The three exceptions occur on Ellabelle soil, typically found in drainageways, bays and sloughs (Wilkes et al. 1974).

A second survey was conducted on a small peninsula on the southeastern corner of Skidaway Island. The peninsula was first surveyed along the marsh edge then transected east to west at 200 foot (61 meter) intervals (DePratter 1975:6-10). Again, the site distribution reported appears to conform with the Sapelo model with some exceptions. The occasional location of sites in sloughs or low areas seems to be determined by proximity to the marsh edge.

Sheldon (1976) has recently conducted a survey of Colonel's Island in Glynn County, Georgia, where he identified a "live Oak Zone" above ten feet (3 meters) in elevation, and a "Pine-Oak-Palmetto Community" below ten feet. All of the sites located were within the Live Oak Zone along the edge of the marsh.

The soil survey of Glynn County has not been published, therefore no comparison can be made between archaeological sites and soil types. However, Sheldon's Live Oak Zone shares the elevation and vegetation of Stratum A on Sapelo. The Pine-Oak-Palmetto Community resembles Strata B and C. Sheldon also noticed the association of sites and the marsh edge, particularly at points close to tidal streams.

On Green Island, a Pleistocene marsh island near Skidaway Island, Crook (1975) first surveyed the marsh edge then transected the island at 50 meter intervals. Out of 57 sites discovered on Green Island and two nearby hammocks, 56 are on Chipley or Lakeland soils, well drained soils formed on sand ridges (Wilkes et al. 1974), and all are adjacent to the estuary. The correlation of sites and tidal streams is quite high on Green Island.

## CONCLUSIONS

The reports cited above seem to support the model for barrier island settlement pattern based on the Sapelo Island Survey. However this does not constitute a test of the model's application to other barrier islands. It is hoped that future investigations will provide a means of testing the hypothesis stated here. Where possible, future surveys should address site distribution with respect to environmental variables, utilizing a proba-

bility sampling technique to provide a statistical measure of reliability of the settlement data obtained. Environmental variables can be quantified, as Pearson (1977) has shown, to develop an index of the environmental factors influencing settlement.

# A PRELIMINARY REPORT ON TEST EXCAVATIONS AT THE SAPELO ISLAND SHELL RING, 1975*

By Daniel L. Simpkins

In the summer of 1975, a six man crew, working under the direction of Lewis H. Larson, Jr., spent six weeks delineating the Sapelo Island Shell Ring site through contour mapping and limited testing. This paper is intended as a preliminary report on the field work and the results of the laboratory analysis conducted thus far.

## ENVIRONMENTAL SETTING

Sapelo Island occupies a central position on the Georgia coast directly north of Saint Simons Island and south of Saint Catherine's Island. Sapelo is a barrier island, separated from the mainland by an extensive salt water marsh lagoon. The island is composed of a series of Pleistocene and Holocene beach ridges isolated by the transgressing ocean which flooded the area behind the ridges, creating a lagoon. The marsh was formed by sedimentation and colonization by salt-tolerant grasses (Hoyt 1967). The present day floral community developed perhaps as late as 5000 B.P. (Cameron 1976). The island in cross-section is slightly concave, and as a consequence, the interior tends to remain boggy throughout the year.

Larson (1969) has divided the southeastern coast into three major ecological sections. From east to west they are: The Strand section, where the ocean meets the land in a shoreline, beach, and/or dune sequence; the Lagoon and Marsh section, which includes the islands and the tidal marshes; and the Delta section, where fresh water rivers draining the coastal plain enter the ocean, creating an estuary. Sapelo Island occupies the Strand and the Lagoon and Marsh zones. Of the two, the Lagoon and Marsh section, with its high degree of ecological diversity and biomass, was of greater economic importance to aboriginal populations (Larson 1969:13).

## ARCHAEOLOGICAL SURVEY

McMichael (Simpkins and McMichael 1976) has tentatively grouped aboriginal sites located by the archaeological survey on Sapelo into six general areas (Figure 1). Of these, the Shell Ring lies in the Mud River area which extends along the west side of the island from Chocolate, an historic plantation site, to High Point. The vegetation in this area resembles what Shelford has called the Magnolia Forest (Shelford 1963:63-64). Middens are small, averaging about six meters in diameter, and are scat-

*Reprinted by permission from Early Georgia, Vol. 3, 1975. Pp. 15-37.

tered along the edge of the marsh, extending inland as far as 500 meters, where the elevations begin to drop.

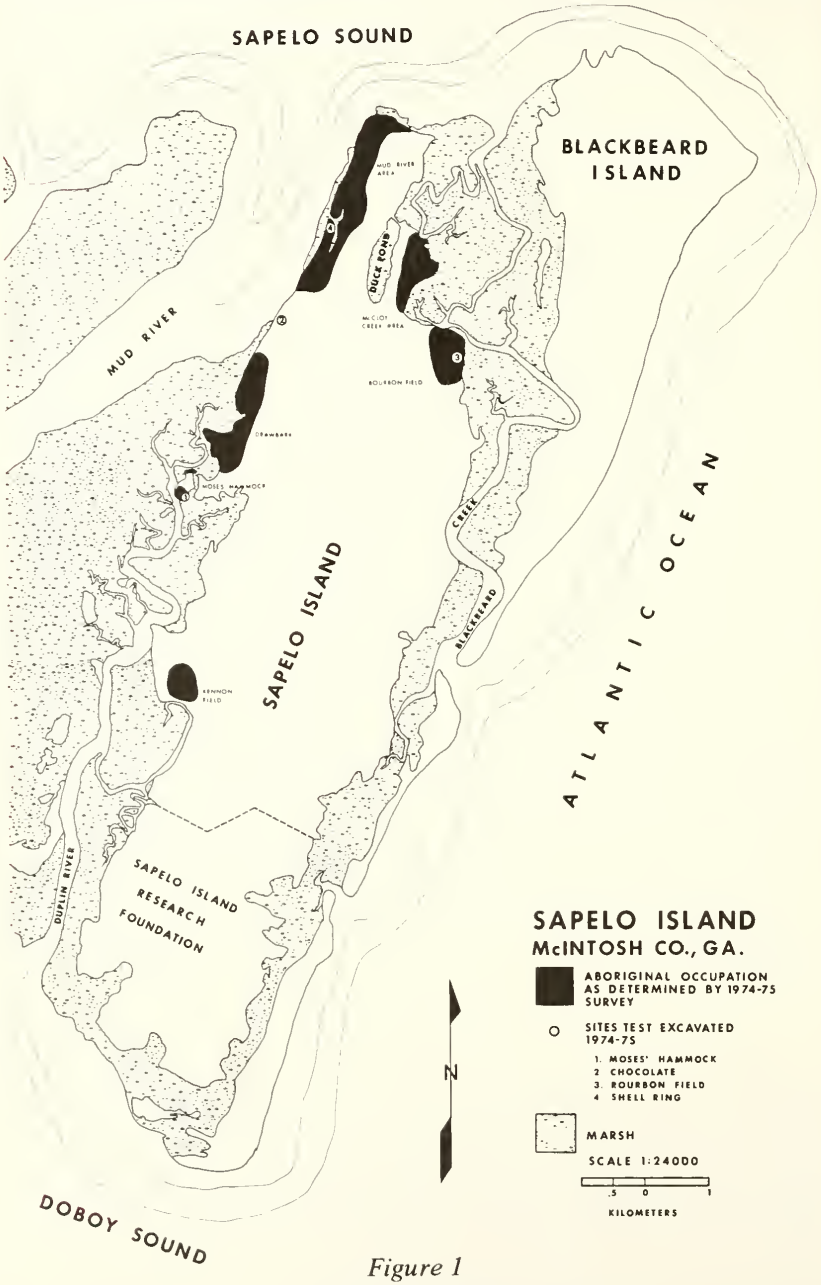



*Figure 1*
*Sapelo Island*

Although the archaeological survey of Sapelo is only partially completed, McMichael has made several tentative statements as to the nature and extent of aboriginal occupation.

> First, habitation sites on the island appear to be strategically located with respect to natural features rather than uniformly spread over the island or occurring purely at random.
> Second, sites appear to be concentrated in areas contiguous to the marsh, i.e., the western side of the island and the northeastern corner.
> Third, within these areas, sites tend to occur closest to points at which tidal streams approach the shore.
> Fourth, sites are encountered most frequently on the perimeter of the island, those areas of greatest elevation. Sites appear to be lacking in the low-lying interior (Simpkins and McMichael 1975:5).

The Shell Ring site conforms well with these observations.

## THE SAPELO SHELL RING

Among shell rings, the Sapelo Ring, or possible ring complex, with a radiocarbon date of 3700+/−250 B.P.:1750B.C. (Crane 1956:665) has been one of the best documented. Previous research includes the exploration of the Shell Ring and three burial mounds on the north end by Clarence B. Moore in 1897 (Moore 1897:55) and a test excavation at the ring by Waring and Larson in 1950 (Waring and Larson 1968:263). Past exploration had concentrated upon the midden and interior of the ring with a brief reconnaissance of the site area exterior to the ring (Figure 2). Waring and Larson had concluded in their report on the 1950 excavation that:

> The excavation definitely established the fact that no matter to what use the ring ultimately may have been put, it was composed of occupational midden in primary position which was deposited as the result of habitation sites located on the ring (Waring and Larson 1968: 273).

It was hoped that investigation exterior to the ring would reveal the nature of land utilization in that area.

Shell midden containing plain and ornamented pottery have been reported in the literature pertaining to the site (Waring and Larson 1968:268; McKinley 1873:432). Two 2 × 2 meter squares were therefore excavated in middens immediately south of the ring to establish that they were contemporary with the ring.

*Sq. 488R439.* This test pit was located on a small, low, well consolidated shell midden near the edge of the marsh. The 20 cm. thick midden contained low fired brick and fragments of oxidized, free-blown lipped bottle in association with Irene, San Marcos and possibly earlier wares.

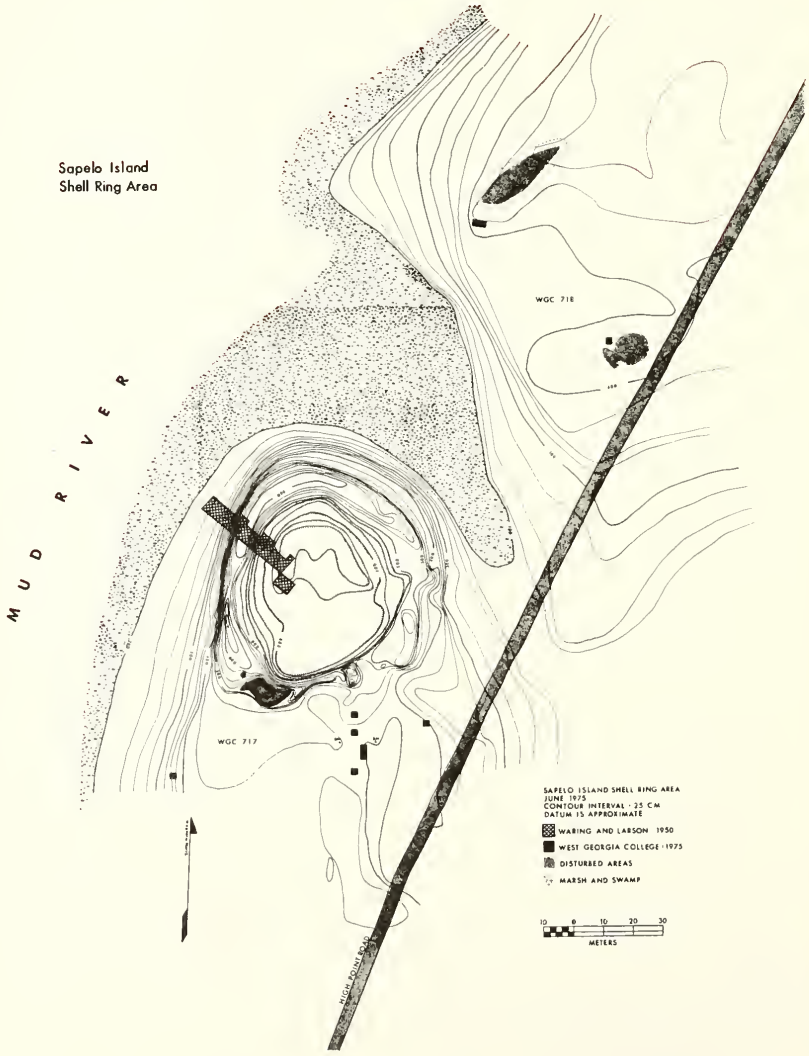



*Figure 2*
*Sapelo Shell Ring*

Beneath the midden, the sandy soil contained St. Simon's Plain sherds and Poverty Point object fragments.

*Sq. 505R524.* This square was located in a disturbed midden with Mississippian and protohistoric wares overlying thinly scattered Wilmington, and deeper fiber-tempered wares. Several faint features were examined, but root impressions and leached sand made positive stratigraphic interpretations difficult.

*Sq. 508R500.* This test pit was located on the south-eastern exterior edge of a scalloped portion of the shell ring on a small rise above the generally level adjacent plain. Dark, humic soil interlaced with shell reached a depth of 40 cm. Features apparently resulting from slumpage were encountered as the ceramic sequence graded from a thin covering of Irene wares into a zone of Saint Simon's wares. This area may represent a remnant of the ring pulled away during the collection of shell for tabby.

*Sqs. 489R500 and 502R500 and Unit 494R503.* Artificats in this section of the site trended from Irene wares to increasingly predominant fiber-tempered wares. A small fire pit was encountered at 45-50 cm. in the center of the 2 × 5 meter unit. A nearly sterile lens of chalky, white sand containing a single concentration of Deptford Geometric Stamped sherds was located between the dark brown sand of an Irene horizon and a fiber-tempered horizon lying at 74-88 cm. in a zone of leached gray-tan sand (see Figure 3). A small refuse pit was located in a shell-free context at 80-135 cm., and contained small concretions, fish bones, charred and fragmentary hickory nut shells, seeds of still unidentified plants, and a fiber-tempered pot-sherd. A radio-carbon date of 4120+/−200B.P.:2170B.C. (Lab No.: RL-580) was obtained for the feature from 2.6 grams of charred hickory nut shells (Genus *Carya)* and unidentified seeds. At the northern end of the unit a shattered portion of a Saint Simon's Plain bowl was encountered at a depth of 80-100 cm. Assuming a hemispherical shape from the rim and body arcs, the volume of the bowl was computed to have been approximately 12.2 liters or 2.9 gallons. Profiles from adjacent test squares indicated more lensing and less clear soil horizons than the 2 × 5 meter unit.

The stratigraphy recorded in the 2 × 5 meter unit may be significant in regard to varying results within the ring. Moore (1897) had reported that:

> Excavations made within the enclosure gave varying results. At one point yellow, undisturbed sand was reached about 1 foot beneath the surface. Another excavation went through loam and midden refuse to a depth of 2.5 feet. Earthenware in fragments, shattered bones of the deer and a fragment of a temporal bone from a human skull were met with (Moore 1897: 71-73).

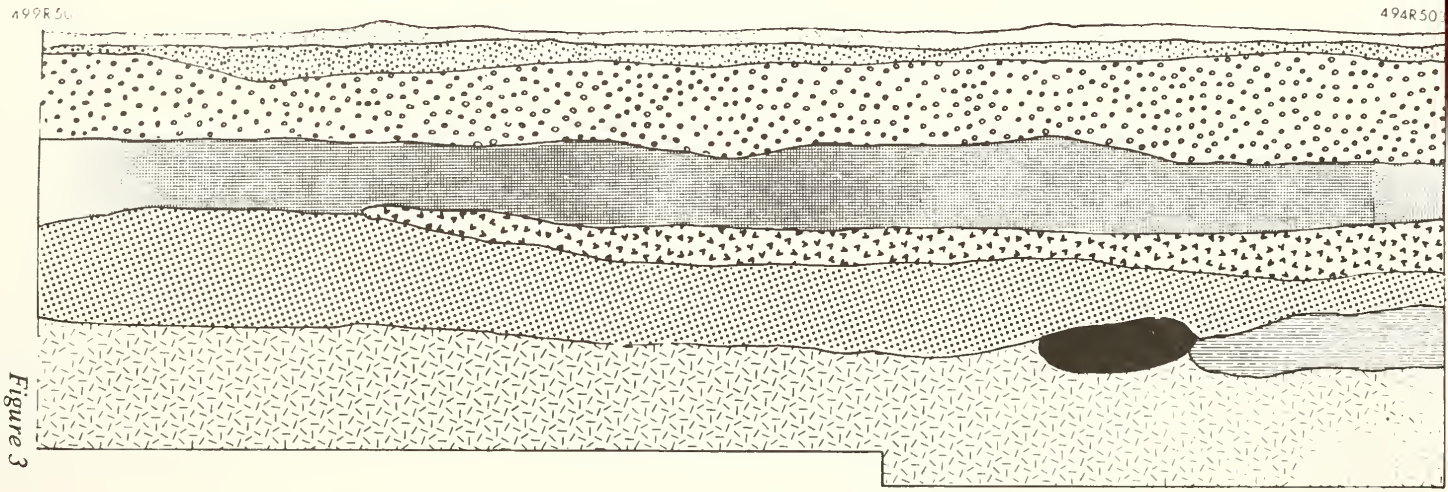



*Figure 3*
*Profile of Shell Ring*

WGC 717
SAPELO ISLAND SHELL RING
UNIT 494R503 EAST PROFILE
JULY 1975

0 20 40 60 80 100
CENTIMETERS

- TOP SOIL
- LEACHED TAN SAND
- LIGHT BROWN MOTTLED SAND
- DARK BROWN SAND
- CHALKY WHITE SAND
- LEACHED GRAY-TAN TO ORANGE SAND
- TAN SAND STAINED WITH LIMONITE
- STERILE GRAY SAND
- FEATURE NUMBER 8

Unfortunately, it is not known where Moore was working within the ring. In contrast, Waring and Larson (1968) had observed:

> Unit 1 was excavated to a depth of two feet. The midden material throughout was very thin. There was an almost total absence of shell. That cultural material and shell which did occur seemed to be the result of slumping from the ring. The evidence from Unit 3 would seem to bear this out.
>
> Unit 2 was even more noticeable in its lack of midden deposit. Not more than a handful of sherds were recovered and little or no shell was to be found (Waring and Larson 1968:270).

The zone from 2 feet to 2.5 feet or about 61-76 cm. depth is just above the zone represented in Figure 3 by the chalky-white, nearly sterile sand. The implication may be that a thin, but widespread, fiber-tempered occupation zone, perhaps buried by aeolian deposits, lies beneath this level, and squares adjacent to the 2 × 5 meter unit may have been terminated prematurely.

An interesting sidelight to the investigations was the discovery of two tabby remnants exposed on the surface. These lay 35 degrees east of north and approximately nineteen meters away from the western edge of the 1950 excavation. The larger of the exposed remnants lay adjacent to the steep western face of the ring and measured approximately 125 cm. by 30 cm. A second remnant lay 275 centimeters to the west and measured 40 cm. by 10 cm. Both remnants aligned generally north and south along their long axes. These could represent a portion of a dock and the steep, eroded western edge of the ring may therefore be the result of the collection of shell for tabby rather than erosion of the ring by Mud River.

## "RING NUMBER II"

Willima McKinley's (1873:422-3) 1872 description of the Sapelo ring area as being composed of three individual rings was considered to require veritifcation. As a result of a surface survey in 1974, a large, very disturbed midden was located in the general vicinity of McKinley's Ring No. II. The area had been subject to rather extensive borrowing, but several areas of undisturbed midden still exist. It was felt that if ring deposits had been removed, leaving the area beneath not greatly disturbed, the site might provide an excellent opportunity to learn more of the basal structure of shell rings without first excavating intact midden. Consequently, three 2 × 2 meter test pits were placed in areas where the top strata were obviously disturbed, but where it was hoped that the lowest strata of the midden had remained intact.

Middens explored by Test Pits 1 and 3 can be briefly described as consisting of a high concentration of artifacts in a matrix of highly organic soil and shell, which affords excellent faunal preservation. In the first fifteen-centimeter level, large quantities of late aboriginal sherds

were found in context with historic materials, including a molded spherical lead object, low-fired brick, hand-wrought laminated square and rose-headed nails, a white clay pipe stem, and tin- and lead-glazed European ceramics indicating a date at least prior to A.D. 1850. These materials overlay and were mixed with the original Archaic midden below.

Test Pit 2 was terminated above a refuse pit after obtaining a Saint Simons Plain sherd from the feature. The upper levels of the midden exhibited an historic component in the form of olive jar and tabby fragments, and hand-forged nails in association with Irene and San Marcos wares. Savannah and Saint Simons sherds increased in abundance with depth.

All pits at WGC 718 were closed while still in heavy midden which was determined by artifactual comparison to be approximately contemporary with Ring No. 1 (WGC 717).

The general context of WGC 718 is that of at least one Archaic midden of undetermined shape and size overlain and mixed in the upper levels with Mississippian, protohistoric, and historic components. No evidence of Ring No. III was found in either 1974 or 1975, and McKinley's description implies that both Rings No. II and III, assuming they actually were rings, were already disturbed in 1872. The strong historic component at the site re-awakens speculation pertaining to the location of the Spanish Mission at Sapelo and may also account for some of the early descriptions referring to the site as the "Spanish Fort" (Floyd 1937).

## RECOVERED MATERIALS

Faunal and floral material was obtained from the midden matrix by water-screening, passing the matrix through a series of stacked screens, and hand sorting.

Faunal analysis is being conducted by the Florida State Museum and preliminary observations by Dr. Rochelle A. Marrinan of material from Test Pit 1 indicate that:

> . . . Mammals and fish seem dominant, but turtles and birds seem to be important in this sample.
> One facet of the sample that I have noticed is the predominance of catfish otoliths and the exclusion of other types. Hemmings' Fig Island sample also showed high numbers of catfish otoliths. It is difficult to know if this represents aboriginal availability conditions or food preference or is a function of recognition . . . Catfish have easily recognized otoliths but your sample contains other fish (e.g., drum) which have large and easily recognized otoliths (Marrinan 1976).

One human deciduous tooth, crab claws, and fragments of polished, undecorated bone pins were also encountered in Archaic midden.

Floral analysis is being conducted by Ms. Marguerita Cameron of the University of Alabama. In addition to the hickory nut husks already

mentioned, seeds from *Smilex glauca,* a briar with edible roots, was present in Sq. 488R439 (0-15 cm.). Several types of seeds from the Archaic Feature #8 were recovered, but have not yet been positively identified.

An initial typology of the aboriginal ceramic population from the site yields the following approximate percentages: fiber-tempered wares, 33%; Deptford and Wilmington, ½ of 1% each; Savannah, 3%; Irene, 47%; San Marcos, 5%; with 11% remaining unidentified. Stratigraphically, the distributions tended to confirm the established coastal ceramic sequence. The first levels were disturbed, but lower levels trended toward increasingly unmixed and probably undisturbed fiber-tempered wares which often amounted to 100% of the total ceramic population of a level.

Hematite, limonite, and calcite impregnated sands forming concretions around tree roots and in the sand were common. Although their dates of origin probably post-date the archaeological context of the area, they were recovered. Lithics, which are quite rare on Sapelo, consisted of a fragment of pecked and ground steatite, a small fragment of chlorite schist, a small Mississippian triangular point of chert (perhaps a Madison point) recovered from an Irene association, and a few quartz and chert fragments.

Shell, of course, is the predominant recovered material; the great majority of which is Eastern oyster *(Crassotrea virginica).* Other representatives include Southern Quahog *(Mercenaria campechiensis),* periwinkles (family *Littorinidae).* Knobbed Whelk *(Busycon carica),* Channeled Whelk *(Busycon cancliculatum),* and an occasional olive shell (family *Oliviade).*

## WHELK ANALYSIS

The only shell which might constitute culturally altered material is whelk in the form of *Busycon* hammers, picks, hoes, or pounders. These represent a line of evidence for diffusion of Formative Period traits from Latin America; specifically, Puerto Hormiga in Colombia, to the southeastern United States.

Stoltman (1972) has summarized the evidence for contact between these widely separated areas in three categories:

1) The fiber-tempered pottery is associated with middens reflecting similar subsistence patterns.

2) Radiocarbon dates indicate an overlap in age with the Puerto Hormiga material being older and Southeastern pottery persisting longer, and

3) The prevailing winds and oceanic currents could have facilitated movement of people from the south to the north. Stoltman further states that:

> Given these shared general conditions, plus at least a few specific resemblances in content such as the fiber-tempered pottery

itself, ring-shaped shell middens (which are rare or absent in both areas at other times), and marine shell "hammers" or "picks" (conch or other large marine shells with the end of the columella rounded or beveled and the body of the shell carefully broken then perforated to facilitate halfting) that are also found both at Puerto Hormiga and in the Southeast, and one is led to conclude that the probability of contact is indeed high enough to warrant serious further investigation (Stoltman 1972: iii).

Altered *Busycon* shells were probably first described by Moore in relation to primarily post-Archaic sites in Florida (Moore 1905:315-325). Many of these clearly represented hoes and other implements. Since Moore's time, however, the terms *Busycon* pick and hammer seem to have become increasingly imprecise and have been applied to an increasingly diverse assemblage of altered shells. Today, the term often seems to be applied to any whelk or conch exhibiting deformation of the columella or outer whorls.

*Plate 1*
*Possible Busycon Picks or Hammers*

The whelk exhibited in Plate 1 include some of the forms which were first separated from the entire collection and examined as possible *Busycon* picks or hammers. Although some of the shells seemed well-suited to the category, others required a more general "lumping" to fit the term. In some cases the dorsal hole appeared to be out of alignment for proper shafting. Erosion of shell material from the beaks and the edges of the dorsal hole was common during washing, and in one case a specimen was excavated with a root entering the aperture and exiting through the dorsal hole. These anomalies led to a suspicion that factors such as erosion, weathering produced by acid in the soil, varying thicknesses and structural strengths of different portion of the shells, unintentional brekage, midden weight, or root damage may have been as important in producing the excavated forms as any deliberate attempt to manufacture a tool.

Another form appeared to represent a valid taxonomic unit. The whelk exhibited in Plate 2 (hereafter referred to as Group I) were selected from the total sample of 166 intact shells and fragments of *Busycon* collected from the site. However, associated pottery indicated a possible chronologic range from the Wilmington Period through the proto-historic or even historic periods. Such persistence of an artifact type seemed problematic.

In order to help clarify the taxonomic relationships between the vari-

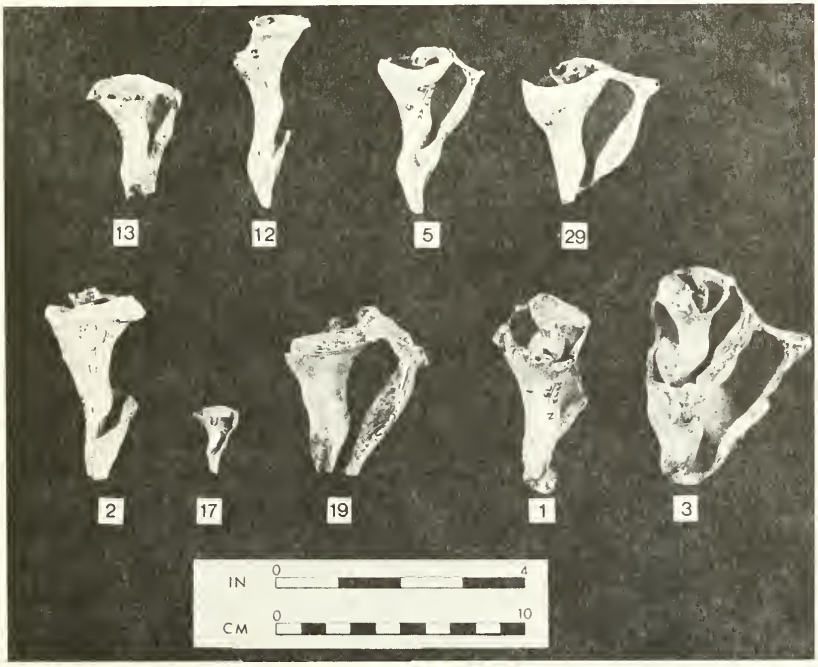



*Plate 2*
*Busycon Shells: Group 1*

ous forms taken by the *Busycon* shells, thirty specimens from a single level containing 69% Saint Simon's sherds were compared on the basis of 45 morphologic characteristics. These characteristics included species, shell length (above or below the group median), alteration of the siphon, manifest weathering, the number of discrete alterations of each shell, and distinctions between internal and external beveling produced by the alterations. In addition, the percentage removal of shell from each of the six largest, most recognizable whorls and the columella were estimated to the nearest 20%. Of these traits, combinations of the types of beveling accounted for five characteristics, and removal of shell from the whorls and columella accounted for 35 characteristics. The remaining five traits are as mentioned above. These characteristics were then quantified on the basis of presence or absence and analyzed by cluster analysis.

Cluster analysis is a multi-variant procedure or organizing a large number of samples (N) on the basis of many variables (m) into a smaller number of statistically significant groups. A computer program compares each sample to every other sample and calculates a similarity matrix ($N \times N$) based on the Jaccard Coefficient. This coefficient is defined as $Jc=P/P+M$ where P is the number of characteristics present in both of any two samples,

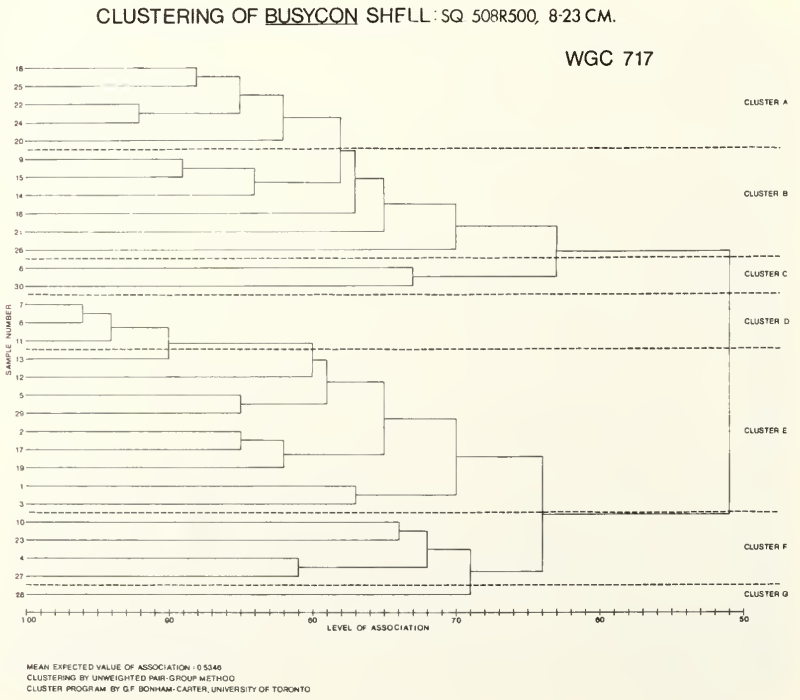



*Figure 4*
*Dendrogram depicting clustering of Busycon Shell, Sq. 508R500, 8-23CM.*

and M is the number of characteristics present in one sample and absent in another. The Jaccard Coefficient varies from 1 to 0 with the former signifying a "perfect correlation" and the latter signifying "no correlation." From the correlation matrix the samples are grouped into the least number of statistically significant classes or clusters. Results of this type are expressed as a dendrogram as illustrated in Figure 4. A discussion of this technique is given in several recent texts, as for example Everitt (1975) and Johnson (1968).

Arranging the shells and fragments as suggested by the dendrogram, several clusters were indicated.

Cluster A consisted of nearly intact shells.

Cluster B consisted of shells with altered siphons.

Cluster C consisted of shells with some removal from the outer whorl and altered siphons. Unfortunately, the whorl alteration was not in the form of a dorsal hole and the cluster could not, therefore, be directly compared to the whelk exhibited in Plate 1.

*Plate 3*
*Busycon Shells, Cluster E.*

Cluster D consisted of outer whorl fragments.

Cluster E, illustrated in Plate 3, will be described below.

Cluster F consisted of shells with beak material removed.

Cluster G consisted of a single specimen with shell removed from the beak, and a small amount removed from the anterior whorls.

The large break between Clusters A, B, and C and Clusters D, E, F, and G was apparently produced by the heavy reliance placed upon the percentage of shell removal from the whorls.

Cluster E (Plate 3), most closely resembled Group I (Plate 2). Beaks, siphons, and outer whorls were altered. The sub-cluster represented by specimens 2 and 17 most closely resembled Group I although specimen #17 is only 2.8 centimeters long. Although similarities between the groups were evident, several important differences were also observed. Group I consisted of shells of fairly uniform size (8.8-12.8 cm.), predominantly smooth and regular contours, and predominantly smooth edges along altered sections of the shell. A gradual seriation of traits was exhibited by shells intermediate between the two most dissimilar forms. In contrast, Cluster E consisted of shells of varying sizes (w.8-9.5 cm.), irregular deformation contours, and predominantly battered edges. Variations between individual specimens and between sub-clusters was often accomplished without evident intermediate stages. Whereas the method of formation of Group I was difficult to interpret by observation, Cluster E exhibited manifest instances of weathering, peeling, and other structural weaknesses; that is, the forms assumed by Cluster E were apparently derived through natural processes. Yet, the general morphology of several of the shells, especially specimens 2 and 17 resembled specimens of Group I quite closely. Therefore, the most economical explanation for the formation of Group I is that this group was also formed naturally. Since the columella presumably represents the most resistant portion of a *Busycon* shell, it would be the last portion of the shell to be altered when subject to various forms of natural stress. As shells had increasing amounts of their whorls and beaks removed, and as they were smoothed by erosion and weathering, they would increasingly approach the morphology represented by Group I.

Of course, this analysis does not demonstrate, and is not intended to demonstrate, that *Busycon* picks and hammers are imaginary artifact types, nor does it conclusively prove that Group I is not an artifact type. However, if *Busycon* picks and hammers are to persist as possibly valid evidence for contact between Colombia and the Southeast, more caution seems warranted in future analysis and nomenclature of the shells. Direct comparisons between collections from different sites, experiments with live animals to determine if various forms of deformation facilitate recovery of the whelk meat, and tests designed to determine natural breakage patterns of empty shells may elucidate this interesting problem.

## SUMMARY AND CONCLUSIONS

Without becoming enmeshed in the complex subsistence problems inherent in midden analysis, West Georgia College hoped to contribute new data concerning a little known area of the site; the area immediately surrounding the ring proper.

Test excavations indicate that middens south of the Sapelo Shell Ring are of late aboriginal and historic origin. A shell-free Archaic feature encountered at a depth of 80-135 cm. in Unit 494R503 has been interpreted as a refuse pit or midden concentration associated with a possible house floor. This interpretation is supported by the fiber-tempered bowl in the northern end of the unit and the unit's profile which does not indicate intrusions. The radiocarbon date of 4100+/−200B.P.:2170B.C. obtained for the feature overlaps with the date of 3700+/−250B.P.:1750 B.C. obtained from the ring itself. It is possible that a thinly scattered, but widespread occupation zone, perhaps buried by aeolian deposits, is present throughout the site.

The large disturbed midden, referred to as WGC 718 on the northern parameter of the site, was determined to be of Archaic origin overlain by proto-historic and historic materials. Contour mapping did not determine if the midden originally constituted an additional ring at the site. Although somewhat disturbed on their surfaces, both WGC 717 and 718 retain much intact sub-surface area.

It is hoped that the analysis of *Busycon* shells from the site will encourage more precise description and analysis of these shells in the future so as to establish their true significance.

The Sapelo Shell Ring is a fascinating, multi-component site certain to provoke further speculation and entice additional investigation.

# SPATIAL ASSOCIATIONS AND DISTRIBUTION OF AGGREGATE VILLAGE SITES IN A SOUTHEASTERN ATLANTIC COASTAL AREA*

By Morgan R. Crook, Jr.

Several sites located on the barrier islands of the southeastern Atlantic coast share a distinctive set of characteristics that may be seen as defining a particular type of archaeological site, referred to here as the aggregate village (the word, aggregate, is used here only in a spatial sense). Defining characteristics of an aggregate village are:

(1) Spatial clustering of circular shell middens.
(2) Association with two or more mounds.
(3) Large site size (from 10 to 60 hectares recorded).
(4) Mississippian provenience.

The intent of this paper is to focus on the spatial associations and distribution of aggregate village sites. The research area is limited to those barrier islands located between the Savannah River in Georgia, and the Nassau River in northeast Florida (Figure 1). Analysis is directed towards definition and explanation of locational similarities and differences within this area.

## OSSABAW ISLAND AGGREGATE VILLAGE SITES

Two sites located on Ossabaw Island, along the northern portion of the Georgia coast, exhibit the defining characteristics of aggregate villages (Figure 2). These two sites, Middle Settlement and Bluff Field, contained burial mounds excavated and reported by C. B. Moore in the late 19th century (Moore 1897:89-130). His published data indicate Savannah and Irene period utilization of the mounds, and by extension suggest a Mississippian period occupation of the associated village areas.

Charles Pearson (1977) included Middle Settlement (9 Ch 158) and Bluff Field (9 Ch 160) in a settlement pattern analysis of sites with Irene components on Ossabaw Island. The two village sites are by far the largest reported on the Island. Middle Settlement covers an area of about 41 hectares (100 acres) and Bluff Field covers about 12 hectares (30 acres).

The Bluff Field and Middle Settlement sites share essentially identical environmental locations. Pearson (1977:121) proposes that these sites

*Reprinted by permission from The Florida Anthropologist, Vo. 31, No. 1, March 1978, Pp. 21-34.

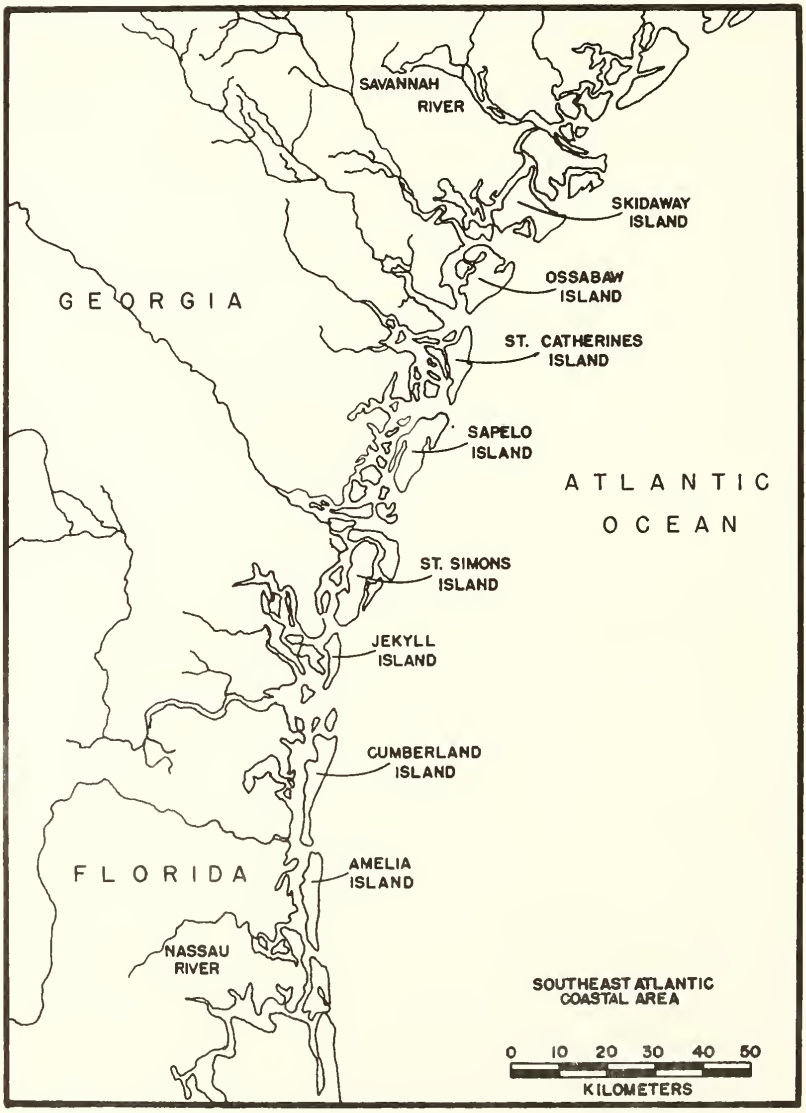



*Figure 1*
*Research Area*

form the apex of the settlement hierarchy for the island. The village sites are highly correlated with a set of ranked environmental variables, which include forest community, soil type, distance from the marsh, and distance from tidal creeks. While these factors may have influenced location of the aggregate village sites, an essential factor appears to have been

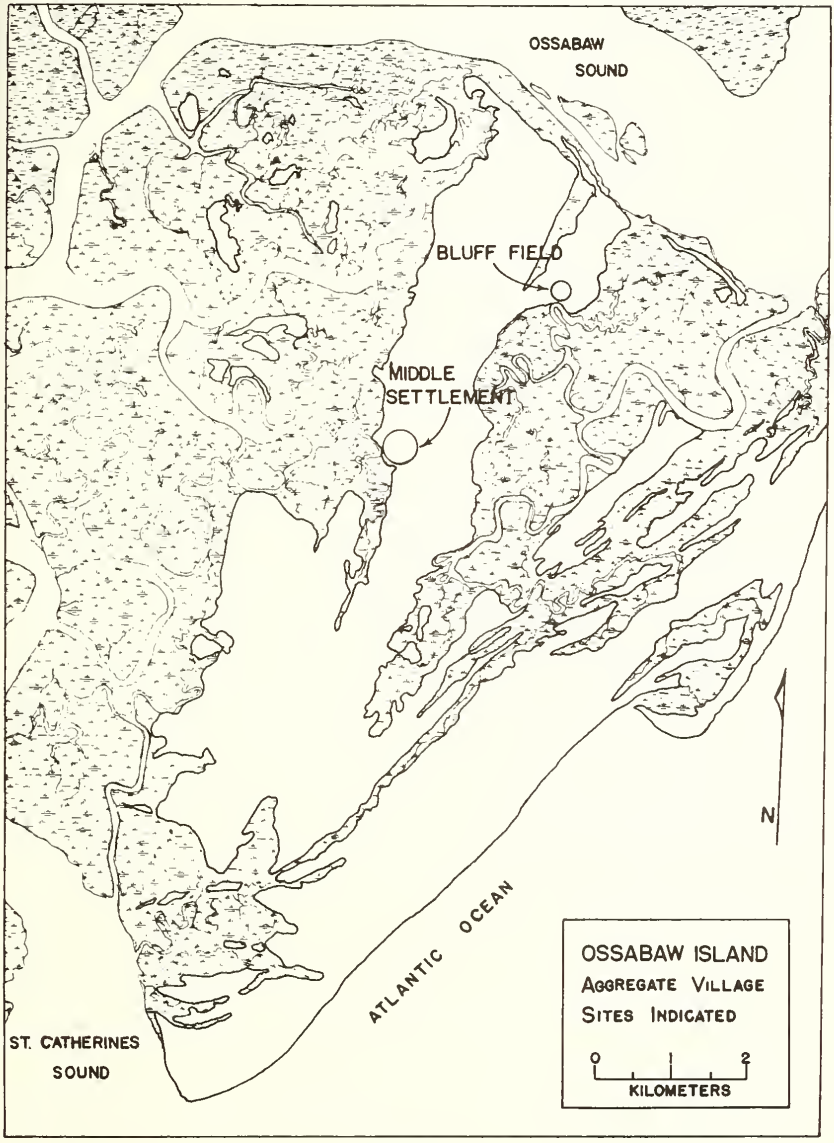



*Figure 2*
*Ossabaw Island, Georgia*

location with respect to tidal stream systems and their resources. Each of the sites is located at the accessible midpoint of a tidal stream system. This particular location provides optimal access to the dendritic tidal stream system. More tidal stream length is accessible within a given distance from this point than from any other location on the island.

Pearson (1977:128) points out that, "site location and archaeologically recovered food remains indicates that Irene phase peoples relied heavily on marsh-estuary exploitation." Tidal streams near the village sites may more accurately define this exploitation zone. While the tidal streams are accessible at other points along the island, optimal access is offered only at the central location.

Pearson (1977:42) states that fish remains recovered from "Irene phase Middens" on Ossabaw Island indicate that small fish were being taken, possibly from small tidal creeks. Today, and presumably in the past, the small tidal streams provide a nursery and spawning area for many fish species (Johnson et al., 1974:94). All of the recovered fish listed for "Various Ossabaw Island sites" (Pearson 1977:59) are common in the tidal streams, particularly during the warmer months of the year (Dahlberg 1975; Johnson et al., 1974; Larson 1969).

Central location of the aggregate village sites with respect to the tidal streams also provides central access to the land that borders the march. Three faunal species commonly identified in animal bone recovered from Ossabaw and other coastal sites are white-tailed deer, racoon, and rabbit. The edge area facing the marsh provides an important habitat for deer and rabbits, and is regularly transversed by racoons entering the marsh to feed (Golley 1962; Larson 1969).

Aggregate village location would have offered the inhabitants defensive advantages as well. Water access to the villages was possible only at a restricted point, the tidal stream. Movement through the marsh to the village would have been essentially impossible. If one considers some of the smaller sites on Ossabaw to have been contemporary with the large villages, then the small settlements north and south of the villages would have offered a warning system of impending attack from these directions. The villages were naturally protected at their rear by a virtually impassable slough that paralleled the length of the island.

## SAPELO ISLAND AGGREGATE VILLAGE SITES

Two sites on Sapelo Island, Bourbon Field and Kenan Field, are the type sites for aggregate villages. The sites occur in locations identical to those found on Ossabaw Island (Figure 3).

Bourbon Field was mapped by the author in 1974. The resulting map is considered incomplete. Dimensional information for most of the individual shell middens was unavailable because of dense grass cover. The location and elevation of each of 196 disturbed shell middens and one small earthen mound (35 meters in diameter; 75 centimeters high) was

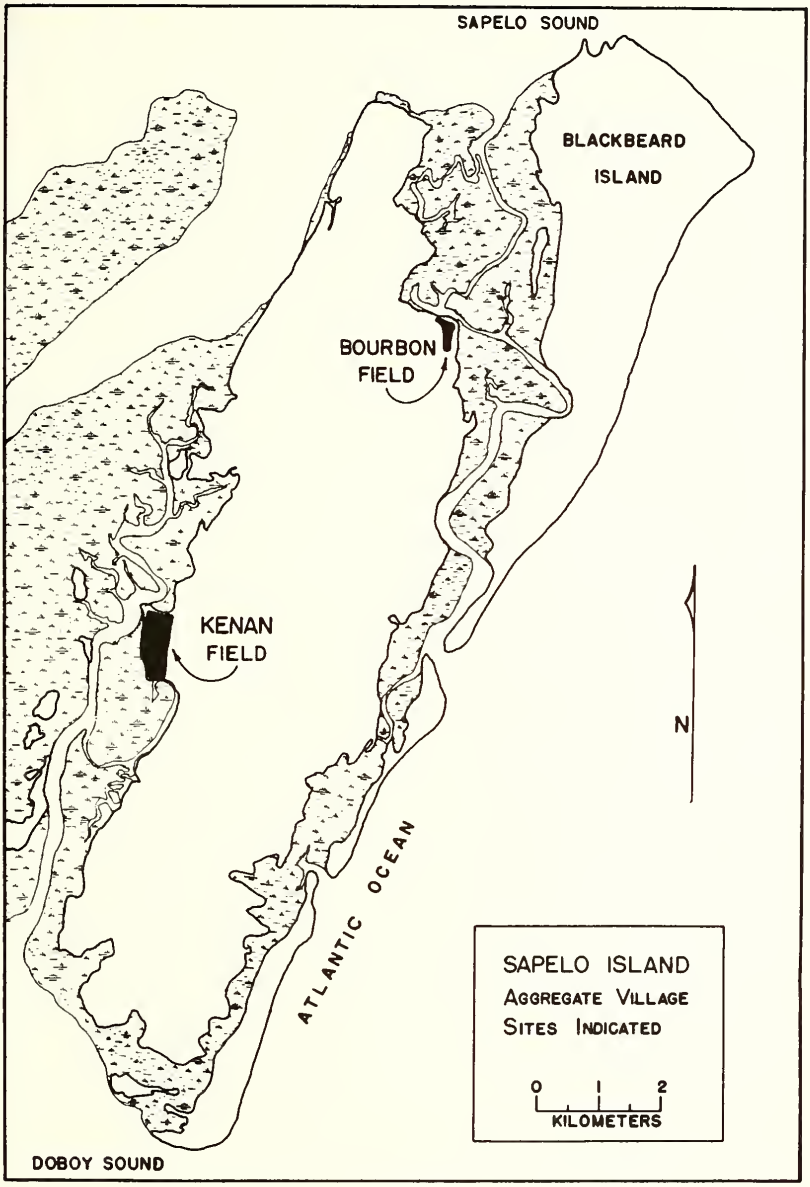



*Figure 3*
*Sapelo Island, Georgia*

recorded with a transit and stadia rod.

The shell middens cover a roughly rectangular area measuring 10 hectares. Rather obscure linear patterns of shell middens and circles of shell middens defining open areas are shown on the map, almost certainly reflecting structural and activity areas. However, the overall pattern is far from clear, due to the lack of shell midden dimensional data. Bourbon Field is scheduled for re-mapping when surface conditions permit.

C. B. Moore excavated two mounds at Bourbon Field (Moore 1897: 55-67). Ceramic and mortuary information from the mounds suggest Savannah and Irene period utilization. Preliminary analysis of pottery from a 45 centimeter thick shell midden, tested during the summer of 1974, tends to support a Mississippian period provenience. High frequencies of Irene Filfot Stamped and cord-marked wares, and smaller numbers of Savannah Check Stamped wares were encountered in the shall midden. The few sherds encountered in the soil zone beneath the shell midden were almost exclusively cord marked (Daniel Simpkins, West Georgia College Archaeology Laboratory, personal communication).

Given small sherds and small sample size, it is difficult to determine if the cord-marked sherds should be classified as Wilmington or Savannah 1 ware. Sherd tempering and cord marking are dominate characteristics of Wilmington period pottery; however, these traits continue with frequency in the later Savannah I wares (Caldwell and Waring 1939a, 1939b; Caldwell 1952). If the occupation below the shell midden was Wilmington, it could date as late as ca. A.D. 1000, based on carbon-14 dated Wilmington contexts on neighboring St. Catherines and St. Simons Islands (Caldwell 1970; Milanich 1977).

Faunal material from one two-meter square excavated in the Bourbon Field shell midden was analyzed by the author. The basal fifteen centimeter level of the shell midden was fine screened (window screen) to recover a sample of small faunal material. This procedure recovered a quantity of material, most of which remains unsorted. A small sample of the screened faunal remains was analyzed.

The species identified from the shell midden commonly inhabit either the marsh-edge area or the tidal streams. Oyster shell made up the bulk of the midden deposit. Oysters are found in beds upon the firmer portions of the tidal stream canals, where there is minimal sedimentation (Larson 1969:123). The mammals represented in the midden include the following minimum numbers of individuals from marsh-edge habitats: one rabbit *(Sylvilagus* sp.), two raccoons *(Procyon lotor),* and two white-tailed deer *(Odocoileus virginianus).*

Identified reptiles include at least one diamond-backed terrapin *(Malaclemys terrapin)* and one turtle *(Chrysemys* sp.). Diamond-backed terrapin are able to tolerate fresh water, however their preferred habitat is salt marsh and tidal streams. Archie Carr (1952:176) states that capture of this turtle is productive when a stop net is placed "across the deeper

parts of good-sized tidal creeks (50-100 yards wide) over shell bottom and near oyster banks." Four species of *Chrysemys (C. picta picta, C. scripta, C. cocinna, C. floridana)* occur on the Georgia coast. These aquatic turtles prefer shallow, quiet, fresh waters, but may occasionally enter the marsh (Carr 1952:214-218; Ernst and Barbour 1972:138-164).

At least two blue crabs *(Callinectes sapidus)* were represented in the shell midden. Blue crabs seem to live in the shallower estuarine waters during the warmer months, and retreat to warmer deep waters during the colder part of the year (Larson 1969:134-136).

All fish identified from the shell midden, except one of the sea catfishes, were recovered from the fifteen centimeter thick fine-screened portion. It should be remembered that material from only a small section of this level was analyzed. One cartilagenous fish was identified, a small skate or ray (Rajiformes). The remainder were boney fish, including at least nine sea catfishes *(Ariidae* sp.), two gafftopsail catfish *(Bagre marinus),* two red drum *(Scianops ocellata),* one black drum *(Pogonias cromis),* six mullet *(Mugil* sp.), and thirteen unidentified boney fish.

The red drum were the largest fish. The two individuals had live weights of around fourteen kilograms each. The black drum was somewhat smaller, but still a substantial individual. The two gafftopsail catfish weighed about 900 grams each, while the remaining catfish, mullet, and unidentified fish weighed far less.

Most of the fish represented in the fine-screened sample appear to have been quite small. The most common skeletal element were tiny vertebrae. There should be a direct relationship between vertebra size and the life weight of individuals within a species, however this relationship seems to be undefined at the moment for estuarine fish. In the absence of such information, the number of vertebrae needed to weight one gram may be used as a convenient measurement of relative size differences between archaeological and laboratory specimens. Laboratory specimens of a sea catfish *(Arius felis)* and a gafftopsail catfish *(Bagre marinus),* each having a life weight of around 900 grams, averaged 9.6 vertebrae per gram. A greatly reduced size is indicated for individuals of the Ariidae family represented in the archaeological sample; the average number of vertebrae was 126.7 per gram (418 vertebra, 3.3 grams). Similarly, a mullet *(Mugil cephalus)* laboratory specimen with a life weight of about 450 grams averaged 8.9 thoracic vertebrae per gram, while archaeological specimens *(Mugil* sp.) averaged 53.6 thoracic vertebrae per gram (59 vertebra, 1.1 gram). Vertebrae from unidentified boney fish measured 71.0 per gram (667 vertebra, 9.4 grams). Although the size of the archaeological specimens cannot be stated exactly, exceedingly small individuals are indicated.

In summary, the species identified from the Bourbon Field shell midden indicate the exploitation of tidal stream and marsh-edge fauna. The identified fish share a number of important characteristics. They are

predominantly bottom feeders, occur in schools or at least large groups, and are available in the tidal streams during the warmer months of the year (Dahlberg 1975; Dahn 1950; Larson 1969). The small individuals suggest that aboriginal procurement was by some sort of impoundment technique, perhaps nets or seines.

The other aggregate village located on Sapelo Island, Kenan Field, is situated on an extension of land that juts out briefly about midway along the western side of the island. The site was mapped and tested during the 1976 West Georgia College Archaeology Field School, under the direction of Lewis H. Larson, Jr. No previous archaeological investigation at the site had been accomplished. C. B. Moore (1897:73) knew of the site, but was denied permission to excavate.

Kenan Field was mapped using controlled transit-stadia transects. Nearly ideal mapping conditions existed due to fire that had removed most of the surface debris. The only obstructions were the numerous planted pines that cover this former agricultural field. The site extends over an area of 60 hectares and contains 591 plow-disturbed shell middens, one large earthen mound (Mound A), and one small earthen mound (Mound B). The shape of the village, as defined by the shell midden distribution, is rather rectangular, corresponding to the shape of the land upon which it is located (Fig. 4).

The spatial arrangement of the shell middens and mounds suggest a rather complex village plan. At least four distinct areas may be observed on the map: (1) a separate clustering of shell middens in the northeastern portion of the site; (2) linear arrangements in the central area of the site; (3) an arc-shaped pattern of large shell middens defining an area to the west of Mound A; (4) an area containing fewer shell midden in the southern portion of the site, near Mound B. Archaeological investigations designed to test specific locational and cultural hypotheses were conducted at the site during the summer of 1977. Once analysis is completed, the cultural sssociations underlying the pattern formation should become more clear.

Most of the pottery encountered in the Kenan Field excavations were Savannah Check Stamped and Savannah Cord Marked ware. Lesser amounts of Irene Filfot Stamped pottery were also present. Qualification of the ceramic components must await complete analysis; however a strong Mississippian period association is certain.

Kenan Field and Bourbon Field, like the Ossabaw Island aggregate village sites, are located strategically with respect to the tidal streams facing each village, as well as the marsh-edge area north and south of the settlements. This location minimizes distance to these environmental zones. The faunal analysis for Bourbon Field supports the view of these areas as primary animal exploitation zones.

The defensive advantages of village location are the same as those proposed for the Ossabaw Island sites. Restricted access to the village

*Figure 4*
*Kenan Field*

from the water, a slough system to the rear of the village, and perhaps smaller settlements to the north and south of each village, are the common characteristics. Smaller, contemporary settlements are undemonstrated on Sapelo Island, however McMichael (1977) has statistically shown that prehistoric sites on the island are associated with the high, well drained soils that front the marsh (i.e., that area north and south of the aggregate villages).

## LOCATIONAL VARIATION AND GEOGRAPHICAL DISTRIBUTION

Aggregate villages are apparently restricted to the northern half of the Georgia coast. Available information (Moore 1897), indicates that the aggregate village settlement type and locational pattern might extend to Skidaway and St. Catherines Islands. Moore was interested in mounds and their contents rather than the kind of locational data needed to demonstrate this. More recent investigtions conducted by archaeologists from the University of Georgia on Skidaway and St. Catherines Islands should provide the data needed to determine if the aggregate village pattern is present.

The Cannons Point area of St. Simons Island (Wallace 1975) and the High Point site on Cumberland Island (Ehrenhard 1976) are locationally the same as the aggregate villages. However each is associated with only one burial mound. These sites appear transitional between the aggregate village pattern and an entirely different pattern to the south.

The sites on the rest of Cumberland Island (Ehrenhard 1976) and those on Amelia Island (Bullen and Griffin 1952; Hemmings and Deagan 1973) are locationally and typologically distinct from the northern village sites. They lack multiple mounds associated with large areas of circular shell middens and appear to be spread along the marsh edge without the locational regularity seen in the northern sites. This reinforces a previous contention that the large consolidated shell middens of the Northern St. Johns area reflect a different settlement pattern from that of the smaller scattered middens to the north (Larson 1958).

Larson has also suggested, on the basis of ethnohistoric and ceramic evidence, that the Timucua extended as far north as Cumberland Island and the pre-Spanish Guale from St. Simons to St. Catherines Island (Larson 1958). The distribution of the aggregate village pattern suggests that the prehistoric Guale extended at least as far north as Ossabaw Island. St. Simons Island and the northern end of Cumberland Island may represent the southern fringe of prehistoric and early historic Guale occupation. The Cumberland Island site could be Timucua rather than Guale, the common locational pattern reflecting contact between the two groups.

## CONCLUSIONS

Aggregate village sites suggest a particular cultural adaptation. Most features of this adaptation remain archaeologically obscure. However, one part is reflected in the location of the large villages. All other things remaining equal, a single household or small groups of households require a smaller exploitation range in a given environment than many households in the same environment. Thus, strategic location would have been an important condition for the establishment and maintenance of large villages on the barrier islands. Exploitative range was effectively broadened and exploitative distance kept to a minimum.

A more productive technology for the procurement of tidal stream resources may have been a prerequisite for the establishment of large villages on the barrier islands. The small fish recovered from the sites are the strongest indication we have for an impoundment technology on the Georgia coast. It would seem impossible to catch small fish in a productive way with hood and line, spears, or other individual fishing techniques. That the fish occur in schools or large groups and are bottom feeders are characteristics productively exploited by impoundment techniques. Additional support for impoundment is offered by the presence of mullet, which are seldom taken on hook and line.

Towns were the residential and political base of the chiefs reported in the area during the 16th and 17th centuries. Dealings with the Guale were through the mico of each town. There also seems to have been a higher office, the position of head mico, that exerted some influence in the Guale province (Swanton 1922:80-84). Aggregate village sites are surely the archaeological manifestation of certain of these towns and their prehistoric counterparts.

Definition and explanation of the similarities and differences between aggregate villages, and their functional and social position within the total settlement system requires more secure archaeological data than is now available. Reliable spatial information is absent for most sites reported in the coastal area. Shell midden sites, so frequent on the coast, offer an opportunity to record the patterns of refuse deposition associated with their occupation. Detailed maps of refuse deposition are necessary to discern locational variations and to formulate spatial, anthropological hypotheses that may be tested archaeologically.

# ARCHAEOLOGICAL INDICATIONS OF COMMUNITY STRUCTURES AT THE KENAN FIELD SITE

By Morgan R. Crook, Jr.

Aboriginal community structures are documented along the Atlantic coast of southeastern North America in 16th and 17th century narratives (e.g. Garcia 1902; Andrews and Andrews 1945). Community life and its organization for the Guale of the Georgia coast included periodic assemblies in council houses which were circular in shape and usually quite large. Individual apartments or cabins were elevated above the floor, lining the walls along the interior of these buildings, and in the center was an open space for a fire and activities.

Archaeological evidence of two large structures, which are perhaps Mississippian Period antecedents of the protohistoric council houses, were encountered at the Kenan Field site during the summer of 1977. Kenan Field is located on Sapelo Island, Georgia, upon an extension of land which juts out briefly along the western side of the island. Cultural features visible on the surface of the site include at least two earthen mounds, a long earthen enbankment, and 589 discrete shell middens. The site area measures 60 hectares (Figure 1).

It is my intention here to provide arguments for and a descriptive and interpretative summary of the community structures at Kenan Field. These structures were archaeologically complex, and many descriptive and methodological details are omitted for the sake of brevity. A complete discussion is available elsewhere (see Crook 1978).

The two community structures evidently were portions of a planned structural complex. The southern structure (Structure # 1) is separated from the northern structure (Structure #2) by a plaza. A large earthen mound (Mound A) is located immediately east of Structure #2 and was probably a functional part of the complex.

Structure #1 appears to have been a large, low platform constructed over a low earthen mound (Figure 2). Based upon construction elements now exposed by excavation, the platform extended at least 29 meters along its north-south axis and at least 36 meters along its east-west axis. Primary construction elements of the structure are denoted by 17 evenly-spaced lines of rectangular post holes. These lines are spaced 1.5 meters apart and are oriented approximately 95° east of north. The lines waver slightly through their course, but retain constant spacing, suggesting that construction of each post-hole line was in reference to one previously constructed. The length of individual post holes is far more variable than the width, which ranges from 18 cm to 40 cm with over 90% measuring about 20 cm across. length varies from 15 cm to 60 cm with most post holes measuring around 40 cm. The rather constant width indicates that

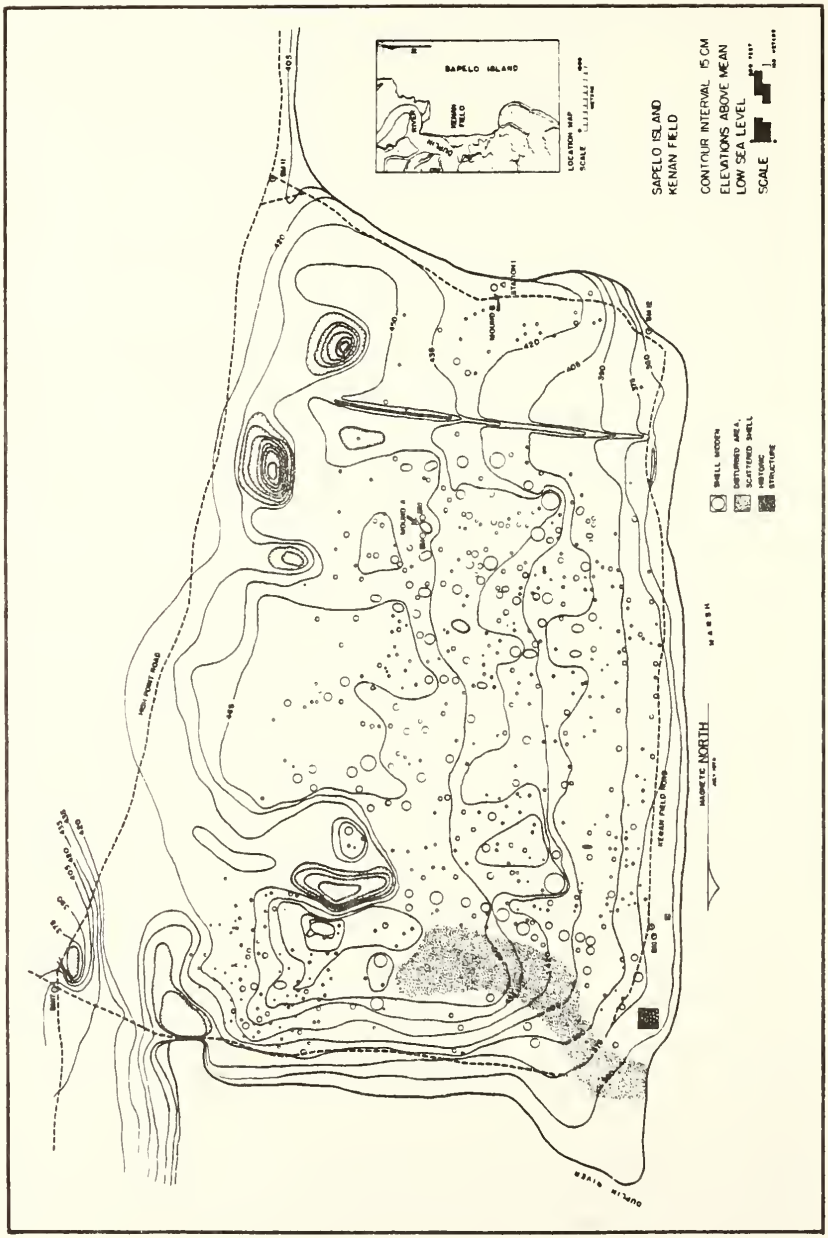

SAPELO ISLAND
KENAN FIELD
CONTOUR INTERVAL 15 CM
ELEVATIONS ABOVE MEAN
LOW SEA LEVEL
SCALE
SAPELO ISLAND
KENAN FIELD
LOCATION MAP
SCALE
SHELL MIDDEN
DISTURBED AREA,
SCATTERED SHELL
HISTORIC
STRUCTURE
MARSH
MAGNETIC NORTH
HIGH POINT ROAD
KENAN FIELD ROAD
DUPLIN RIVER

*Figure 1*

an implement measuring no more than 18 cm wide was employed to construct the post holes.

Only the basal portions of the rectangular post holes were present and these never extended more than a few centimeters into undisturbed subsoil. Walls of the post holes along their width were straight; the eastern wall inclined gently from an indented base, and the western wall was usually straight to slightly sloped. The bottom of most post holes was deepest at the base of the inclined eastern end near the center of the post hole. These deepest points probably mark post positions; however, no post molds were apparent. Judging from those cases where enough of the shallow post holes remained to allow an adequate determination, the form was consistent from one line to the next. The western, rather than

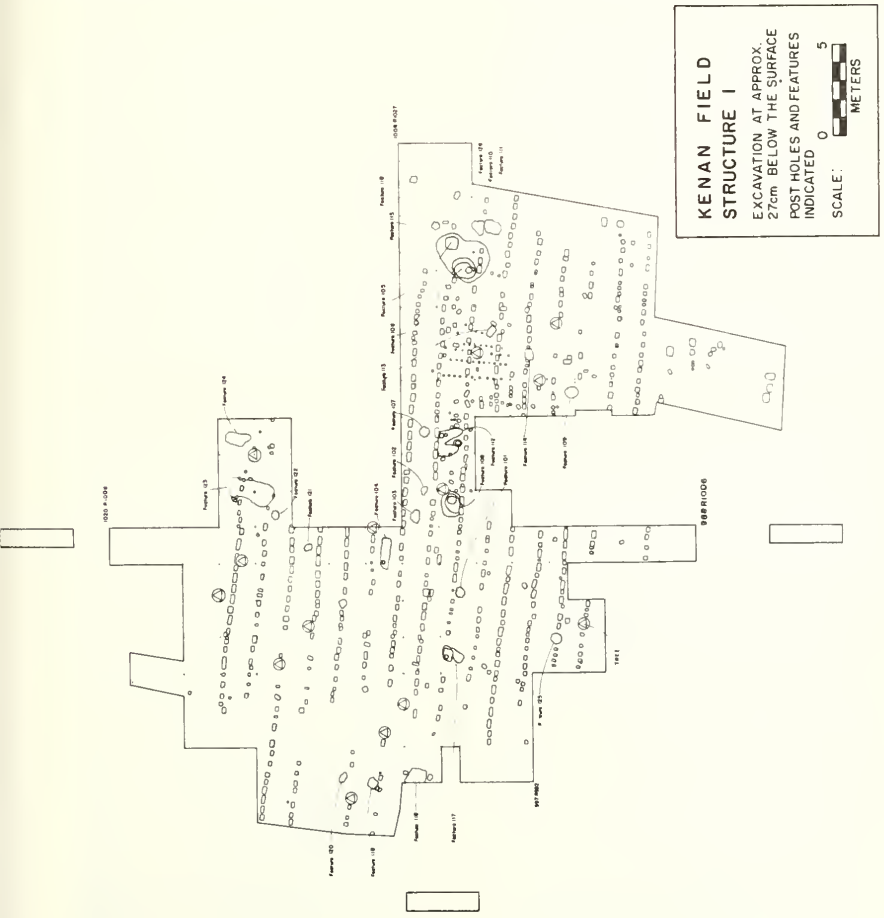



*Figure 2*

eastern, end was inclined in a couple of instances, but these were exceptions without persistence and lacked an apparent pattern. In one case a shallow depression connected three post holes within a line, indicating that the post holes may have been constructed in the base of a wall trench.

The maximum depth of the post holes varied slightly in relation to surface elevation. Where surface elevations were around 4.35 meters or less, the bases were from 26 cm to 35 cm below the surface. Bases ranged

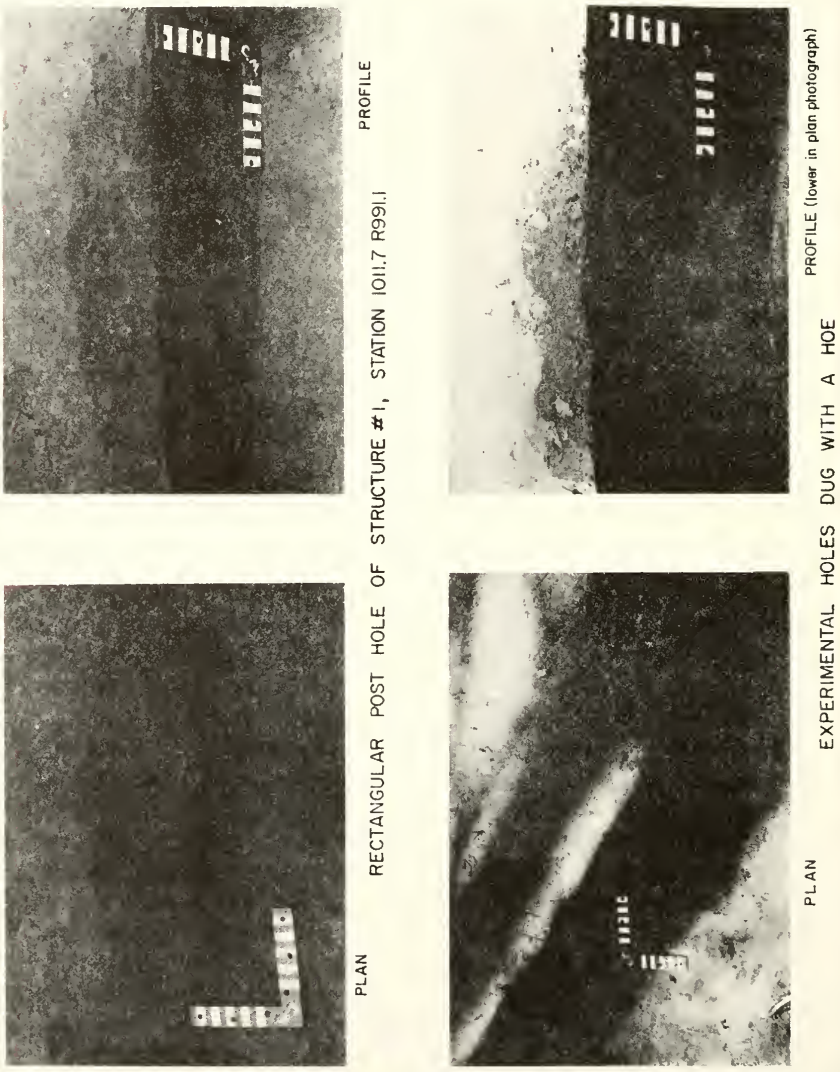



*Plate 1*

from 30 cm to 40 cm below the surface where elevations were around 4.50 meters, in the vicinity of the low mound and in the eastern portion of the excavation area. Assuming that the post holes were dug to a rather uniform depth, this suggests that some surface alteration has taken place since the post holes were constructed.

Several inferences may be drawn from the post-hole data. The form indicates the holes were dug with an implement with straight sides and flat edges. Field experiments conducted with a heavy "No. 2" agricultural hoe, having a blade 20 cm wide and 15 cm deep, virtually duplicated the post hole form (Plate 1). The tool used in construction of the post holes probably was either a hoe or other implement of very similar shape. The persistent sloping eastern sides of the holes indicate that most were dug from the west in a rather consistent fashion, and the equal distance between post-hole lines indicates spacing was an important consideration.

The immediate interpretation which comes to mind is that the "post holes" are the result of hoe agriculture of the plantation period. Several details may be explained by following this argument. Hoe agriculture was prominent on the Georgia coast during the plantation period, and groups of slaves often hoed together, in the same direction, down the crop rows (e.g. Bascom 1941). The regular spacing and slightly wavering orientation of the lines can be explained by viewing them as a result of hoe agriculture.

Problems arise when the agriculture argument is pursued. The post holes are the result of a single event rather than a seasonally recurrent agricultural procedure. The post holes are also free of massive root disruptions which would be expected if their function were for planting. My own attempts to dig a hole 30 cm deep with a hoe were successful only with difficulty. An older Sapelo Island resident, who also was a seasoned gardner and farm laborer, agreed that a foot was excessively deep to dig with a hoe. However, Sea Island cotton, sugar cane, and mulberry trees are plantation period crops which were planted in rows about 5 feet (ca. 1.5 meters) apart. On the other hand, the cotton and cane were planted in ridges rather than in the bottom of furrows, and mulberry trees were spaced 10 feet from one another within each row (Coulter 1940:71, 93, 115). Neither these nor other Sea Island crops, such as rice, corn, or indigo, can adequately explain the rectangular post holes (see Gray 1933).

Other evidence makes the hypothesis of an agricultural origin even more insecure. The relationship between the depth of the post holes and the present surface are within the borrow area of the earthen embank- topographic patterns in the area. Those post holes with bases closer to the present surface are within the borrow area of the earthen embankment located south of Structure #1. Since the depths of these post holes are generally less than those in the eastern portion of the structure and those intrusive into the low earthen mound, it is likely that the borrow activity post-dates construction of the rectangular post holes.

The earthen embankment initially was thought to be an old field road, a circumstance which would neither confirm nor deny the origin of the post holes, since a road probably would have been constructed sometime after agriculture had been intiated at Kenan Field. A mechanical cut was excavated through the embankment in order to expose construction details. The fill of the embankment was composed of light gray sand without evidence of loading or intrusive features. Also absent, perhaps significantly, was any indication of dual depressions near the top surface that would indicate use as a road. The most important observation was that the embankment had been built upon undisturbed topsoil, indicating that the earthwork and, therefore, the rectangular post holes, had been constructed prior to extensive agriculture. A shallow pit containing charred-wood fragments was observed in the profile. This feature originated in the topsoil and was overlain by the embankment. The embankment evidently post-dates Structure #1 and pre-dates agricultural use of at least this section of Kenan Field. The possibility exists that the earthwork is prehistoric or protohistoric in origin.

Available evidence indicates the rectangular post holes were constructed prior to plantation period agriculture; however, their cultural association remains to be demonstrated. The constant 1.5 meter space between the post-hole lines is somewhat less than a Spanish *estado* which equals about 1.69 meters (see Swanton 1922:48). This unit of measurment may have been used on the Georgia coast during the mission period or slightly earlier and 1.5 meters is probably within the range of variability for this Spanish measurement (see Foster 1960:57). Spacing is the only suggestion of a Spanish association as artifacts in the Structure #1 area were exclusively aboriginal. Spanish direction or influence in construction is possible; however, evidence presented below suggests that this is unlikely.

The post hole form and arrangement indicates lines of shallowly-set posts which probably supported a very large, low platform. This type of structure is without precedent on the Georgia coast; however, very similar floor plans have been documented at the Winford Site in Mississippi (McGahey 1969). These Mississippian Period structures at the Winford Site were defined by multiple, evenly-spaced lines of round post molds which were confined to a rectangular to square area and surrounded by a wall trench. A single large post mold, probably indicating a roof support, was positioned in the center of these structures. While this floor plan is strikingly similar to that of Structure #1, the Winford structures are much smaller. The largest measures a little more than 12 meters to the side, while Structure #1 measures at least 29 meters by 36 meters.

Ethnohistoric accounts offer little aid in interpretation of Structure #1. Guale council houses were often quite large and did have raised cabins along their inside walls. DeBry engravings (Lorant 1946:93) show Timucuan chiefs and other officials, engaged in a black-drink ceremony,

seated upon a narrow platform which defines an open plaza-like area. Narrow platforms are also shown in various other circumstances (see Lorant 1946:75, 99, 103, 111). In addition, charnal houses on the coast consisted of lofty platforms contained within a roofed structure. The form of Structure #1 can be explained by none of these ethnohistoric examples. However, it is clear that platform-construction techniques were employed by the coastal aborigines.

The floor plan of Structure #1 seems to indicate the possibility that it is an aboriginal construction. Spatially associated features and cultural materials support this possibility. Features within the structural area tended to be located between the lines of post holes, indicating that many were contemporary with the structure. These features consisted of numerous ashy organic stains upon the subsoil, small shell-filled refuse pits, two hearths, and a large shell-filled post hole. Burned oyster shell from one of the hearths (Feature 106) was submitted for carbon-14 analysis and returned an age estimation of A.D. 1155 +/−75.

Artifacts encountered in the plow zone immediately above the subsoil location of the post holes and features indicate a Savannah Phase association for the structure, supporting the carbon-14 estimate. Based upon the weight-density of pottery within the lower, less disturbed portion of the plow zone, two distinct deposition areas are recognized. One is in a central portion of the structure, above and adjacent to the hearths and substructural mound. Pottery (N=123) within this area included about 30% plain sherds, 25% Savannah Fine Cord Marked sherds, and 25% Savannah Check Stamped sherds. Minority wares consisted of Irene Complicated Stamped and San Marcos Simple Stamped sherds. Two sherds each of St. Johns Plain and St. Johns Check Stamped also were encountered in this location. The second deposition area is along the northernmost line of rectangular post holes; that is, in an area which would have been along and just underneath the northern edge of the platform. Pottery (N=70) here included about 40% Savannah Check Stamped sherds, 20% plain sherds, and 15% Savannah Fine Cord Marked sherds. Minority wares consisted of Irene Complicated Stamped and San Marcos Simple Stamped pottery.

Faunal material in the lower plow zone at Structure #1 also was restricted to two locations. One location coincided with the area of dense pottery in the central area of the platform. Species represented here were white-tailed deer *(Odocoileus virginianus)*, raccoon *(Procyon lotor)*, box turtle *(Terrapene carolina)*, chicken turtle *(Deirochelys reticularia)*, mud turtle *(Kinosternon subrubrum)*, Gafftopsail catfish *(Bagre marinus)*, black drum *(Pogonias cromis)*, gar *(Lepisosteus* sp.), and herring or shad *(clupediae)*. The second area of faunal material was more restricted; located above and around an ashy organic-stained feature at the north wall. Species here consisted of white-tailed deer *(O. virginianus)*, stripped skunk *(Mephitis mephitis)*, spotted sea trout *(Cynoscion nebulosus)*, and

gar *(Lepisosteus* sp). A fragment of human molar also was recovered in this location.

The density of both pottery and faunal material decreased in the plaza area. Pottery (N=24) included about 35% plain, 35% Savannah Check Stamped, and 20% Savannah Fine Cord Marked. Faunal material in the plaza was highly fragmented and none could be identified to species level.

The southern edge of Structure #2 is located across the plaza, 34.5 meters north of Structure #1. Structure #2 measures 55 meters along its north-south axis and at least 31 meters along its east-west axis. The eastern side of the structure is intrusive into the irregular borrow area associated with Mound A (Figure 3). As with Structure #1, primary construction elements are denoted by lines of rectangular post holes spaced at 1.5 meter intervals and oriented about 95° east of north. Although orientation of the post hole lines are the same, the long axis of Structure #2 is perpendicular to that of Structure #1. Also unlike Structure #1, Structure #2 is divided into northern and southern sections by an internal wall trench. Extensive excavation was restricted to the northern section, while a 1 meter wide trench was excavated through the southern section.

Most of the features were encountered in the northern section, probably due to extensive excavation in the area. Construction elements of Structure #2 were intrusive into a few Deptford and St. Simons Period features. Of concern here are the contemporary Savannah Phase features. These consisted of ashy organic-stained areas as at Structure #1, a hearth, and a single large post hole.

Pottery within the lower plow zone of the northern section of Structure #2 was concentrated at the northern edge and interior margin of the platform. Within this location, pottery was most dense in an area above and adjacent to two ashy organic-stained features (Features 202, 203). A few dense areas of pottery also occurred at dispersed locations within the interior of the northern section. Pottery was infrequent north of the structure. The pottery inventory (N=234) from the lower plow zone within the northern section included about 40% Savannah Fine Cord Marked sherds, 35% plain sherds, and 10% Savannah Check Stamped sherds. Minority wares consisted of Irene Complicated Stamped and Incised pottery, San Marcos Complicated Stamped and Simple Stamped pottery, and Savannah Complicated Stamped and Burnished Plain pottery.

Low densities of faunal material occurred throughout the northern section and faunal debris was dense only in the northern wall section above and adjacent to the two ashy organic-stained features. Identified species consisted of white-tailed deer *(O. virginianus),* rabbit *(Sylvilagus* sp.), diamond-backed terrapin *(Malaclemys terrapin),* chicken turtle *(D. reticularia),* mud turtle *(K. subrubrum),* a racer *(Coluber constrictor)* and eastern coachwhip *(Masticophis flagellum),* gar *(Lepisosteus* sp.), Gafftopsail *(B. marinus)* and sea catfish *(Arius felis),* red *(Sciaenops ocellata)*

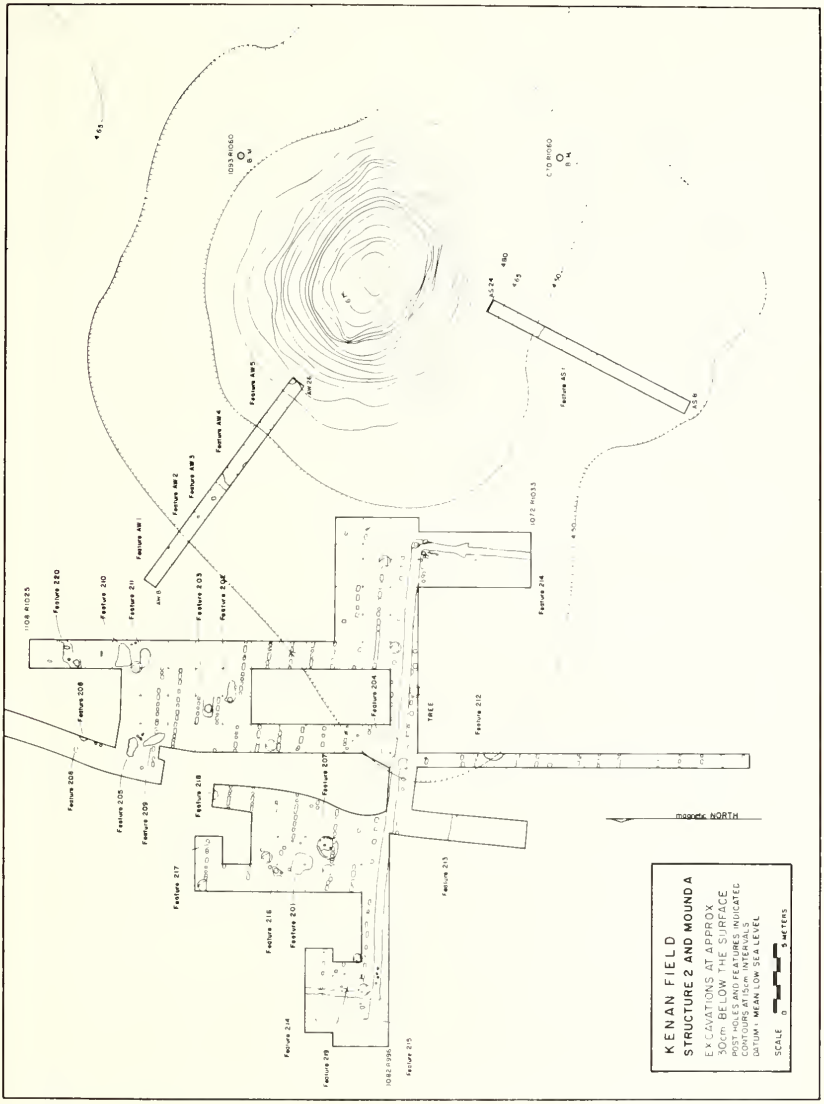



*Figure 3*

and black *(P. cromis)* drum, Atlantic croacker *(Micropogon undulatus),* and sheepshead *(Archosargus probatocephalus).*

In addition to densities of pottery and faunal material, small chert flakes were concentrated around the ashy organic-stained features. These flakes were unutilized and appear to have been the result of retouching stone implements.

Similar inventories of pottery and fauna were encountered in the southern section of Structure #2. Within this section, pottery (N=70) included about 47% plain sherds, 30% Savannah Fine Cord Marked sherds, and 12% Savannah Check Stamped sherds. Minority wares were the same as in the northern section. Identified faunal species consisted of white-tailed deer *(O. virginianus)*, raccoon *(P. lotor)*, rabbit *(Sylvilagus* sp.), mud turtle *(K. subrubrum)*, gar *(lepisosteus* sp.), Gafftopsail catfish *(B. marinus)*, black drum *(P. cromis)*, and mullet *(Mugil* sp.). While the inventories of the two sections are similar, the distribution of materials changes at the dividing wall. Pottery was dense and much more evenly distributed in the southern section, while faunal material was unevenly distributed.

A disturbed shell midden measuring 10 meters in diameter was located just beyond the southern edge of Structure #2. A 1 meter × 4 meter trench was excavated through this 27 cm thick deposit. The shell midden was composed almost exclusively of oyster shell. Vertebrate species were represented by a few bone fragments of white-tailed deer *(O. virginianus)*, a single humerus fragment of an Atlantic green turtle *(Chelonia mydas)*, and perhaps the remains of a box turtle *(M. terrapin)*. Of the 35 potsherds encountered in the shell midden, about 35% were plain, 32% Savannah Fine Cord Marked, and 20% were Savannah Check Stamped. Minority wares included Savannah Burnished Plain, Irene Complicated Stamped, and San Marcos Simple Stamped. A single sherd of St. Johns Plain also was recovered from the shell midden.

In summary, a few important conclusions may be drawn concerning the form and nature of the community structure complex. First, the two platforms appear to be contemporary, as they are located at opposing ends of a plaza; the orientation of their construction elements are identical, their long axes are perpendicular, and both are primarily associated with Savannah Phase pottery types. Secondly, although the two structures share basically identical construction elements, associated cultural materials and their distribution indicate they were probably functionally distinct.

The large size of Structure #1, its association with a substructural mound and a plaza, and the presence of contemporary exotic material (i.e. St. Johns pottery) indicates that it functioned as a community oriented facility. Certainly, communal labor was responsible for the energy expended in construction of the structure.

While Structure #1 definitely appears to have been a community building, it also may have been a residence. Hearths, refuse pits, and diverse faunal remains within the structure indicate that it was the location of food preparation and consumption activities. The small size of the refuse pits suggests they contain the food remains of a small social unit and perhaps even denote single meals. It may be speculated that the dual

hearths indicate that this social unit was polygamous. Conclusions based upon a partially excavated structure must remain tentative; however, present evidence is well explained by viewing this community structure as the residence of a high-ranking political or religious official.

Unlike Structure #1, the northern platform was divided into two sections by a partition. This division probably served to define social space and to distinguish activity areas. Refuse in the northern section was concentrated in a location near the northern end of the platform. The relatively high densities of food remains and fragments of pottery vessels, along with retouch flakes and refuse facilities, indicate that this debris location was a focal point for at least a segment of social activities which occurred within the structure. Food was consumed and its remains were discarded; pottery vessels were broken, and stone implements were maintained in this area. The only hearth associated with the northern section, and one which seems to be contemporary with the debris location, is situated about 15 meters to the southwest. As directly associated faunal material was within rather than around the hearth, it appears that food was prepared here but consumed and disposed of in the debris location.

Evidence that food preparation was spatially distinct from food consumption and other activities indicates that a formal, structured arrangement governed activities within the structure. This surely distinguishes Structure #2 from domestic contexts in which food preparation and consumption are closely related events, both spatially and socially. Separation of these events in the northern section of the structure suggests that food was consumed by persons other than those who prepared it. While the food may have been prepared by women, maintenance of stone tools or weapons was probably a male activity. Thus, chert flakes in the refuse area suggests that the food was consumed by men.

The social segment associated with this inferred male-activity area is indicated by its context within a community structure. It seems quite possible that this portion of Structure #2 was the location of small councils or deliberations involving community affairs. Although the spatial organization of this section of the platform is quite formal, the occurrence of more mundane activities, such as maintaining stone implements, suggests that the location also may have been used as a male meeting place on more informal occasions. Considering that food consumption was separated from preparation activities, it also seems probable that consumption was isolated from food production. In other words, it seems quite possible that the male social segment associated with the structure was supported by the community, at least in the circumstance of the council event. This interpretation of the spatial distribution within the northern section of Structure #2 clearly implies that the Savannah Phase society at Kenan Field was segmented and ranked.

The southern platform section was distinct from the northern sec-

tion, as indicated by the partition and different depositional patterns. Unlike the northern section, pottery was much more evenly distributed and faunal material was distributed more erratically. Excavation was too restricted to provide a clear indication of the form of the spatial distributions; however, it appears that different activities were associated with this location.

The strength of arguments concerning the community structures and their associations must be viewed within the limits of available information. Quite plainly, the archaeological evidence of community structures at Kenan Field is without parallel on the Georgia coast, and I find this uniqueness troublesome. However, the uniqueness could be wholly the product of the lack of investigation at comparable village sties. Kenan Field is the only Savannah Phase village site to be subjected to anything approaching large-scale excavation. In addition to providing a first look at a Savannah Phase village site, the Kenan Field data provides a comparative base for future research.

At the least, information from Kenan Field argues for new directions in coastal research. One such direction involves a reconsideration of Savannah Phase pottery types and their significance. The check stamped pottery within both structures had grit and sand inclusions in their paste, while the fine cord marked sherds were overwhelmingly grog tempered. The distinct pastes of the Savannah Check Stamped and Savannah Fine Cord Marked pottery surely indicates that different processes were involved in the manufacturing of the two wares, and this was probably related to social and/or functional differences in the use of the pots.

Present evidence is insufficient to completely resolve the factors related to the pottery distinctions; however, it seems significant that the high incidence of check stamped pottery is associated with what is interpreted as a communal/status-residence structure, while increased amounts of fine cord marked pottery were associated with a structure interpreted as the location of community political or religious events. This indicates that the social context of pottery use varied between the two structures. Social inferences are limited at this point, but it is clear that use of each of these community buildings was associated with a distinctive yet contemporary assembledge.

# TECHNOLOGICAL ANALYSIS OF SOME SAPELO ISLAND POTTERY: SOCIAL AND/OR FUNCTIONAL DIFFERENCES*

By Marian Saffer

The preliminary analysis of pottery from the Kenan Field site has shown a marked association of certain decorative modes and aplastic constitutents. The correlations of grit inclusions (quartz greater than 1.0 mm) with check stamping and grog inclusions (clay lumps) with cord marking are striking because typically in coastal archaeology, they would be attributed to temporal differences. However, this explanation will not suffice for the present case, because the two kinds of pottery, grit/check stamped and grog/cord marked, are clearly contemporaneous. Ceramic technological analysis was employed to test alternative hypotheses about the correlation of traits, with results which support independently derived hypotheses about the Kenan Field site.

There are a number of explanations for regular physical differences in pottery manufactured at the same time period. The patterns may reflect the exploitation of two kinds of clay, the working characteristics of which demanded different techniques of manufacture or decoration. The patterns may reflect differential exploitation of clays, tempers, and decorative elements by distinct manufacturing units of some kind, for instance, lineages. The patterns may be indicative of functional differences between the two categories of pottery. It is toward evaluation of the latter two hypotheses that the technological data were applied; that is, the manufacturing group difference and the function difference.

The pottery in question was excavated from two Savannah period (A.D. 1000-1540) structures at the Kenan Field site, located on the barrier island, Sapelo. The structures, designated I and II, were apparently large, low platforms and consisted in part of lines of rectangular postholes, regularly spaced and oriented. The structures are at the periphery of an open, plaza-like area. Structure I may be as large as 35 by 50 meters, but Structure II appears to be smaller (Crook 1978).

Both structures have some shell-filled pits, ashy concentrations that may have been from small fires, and organic stain areas. There were two hearths in Structure I, one of which yielded a radiocarbon date of A.D. 1155±75 years. The hearths in Structure I were found at the edge of a

*Reprinted by permission from the Proceedings of the Southeastern Archaeological Conference, Bulletin 22, 1980, Pp. 35-38.

low, in-structure mound, which may have served to drain rain water from that activity area. Structure II had one hearth which appeared to be contemporaneous with the structure. Structure II had no mound, but two wall trenches were exposed, one of which divided the structure into north-south halves.

The spatial distribution of debris was also different in the two structures. In Structure I, pottery and other materials were present throughout, with check stamped pottery most frequent along the north wall, and plain and cord marked pottery most frequent in the interior areas. In Structure II artifactual materials came almost exclusively from along the north wall, with only sparse scatters of sherds and bone in the interior areas. In Structure I check stamped pottery was most frequent (33% of total) and in II cord marked pottery was most frequent (28% of total).

Crook (1978) has posited an interpretation of these structures which is based upon the artifact inventories, spatial distributions of artifacts and features, the features themselves, and ethnohistoric documents. He suggests that the size of Structure I, its proximity to the plaza, and a number of exotic artifacts indicated that some sort of community activity was carried out there. In addition, the structure may have served as a residence, which is suggested by the size of the hearths and the refuse pits.

Crook's interpretation of Structure II is that it also was for community activity of some sort. More specifically, he sees evidence that groups of individuals held decision-making meetings there and were attended by other persons who were involved in food preparation and cooking. On the basis of ethnohistoric documents, Crook has inferred that the individuals at the meeting were of high status. Again, the size of the structure, location, and debris distribution contribute to the interpretation (Crook 1978).

The pottery from Kenan Field was categorized initially with a cross-classification system (rather than "typing"), the dimensions of which were two variables: decorative mode and aplastic (a term inclusive of temper and naturally occurring inclusions). The use of this method for classifying pottery avoids relying upon the accepted but problematic typology in current use by coastal archaeologists. Using the established typology may have resulted in forcing the data to fit the pattern, rather than examining the data to detect patterns. Moreover, the association of grog with cord-making and grit with check stamping would not have been documented (Figure 1).

After noticing the aplastic/decoration association in pottery from Structures I and II, technological analysis was carried out to define other traits in the categories and to facilitiate interpretation of the differences.

The physical traits of a pottery vessel may vary according to the function intended for that vessel, particularly traits built in or controlled by the potter in the process of manufacturing and/or the selection of raw

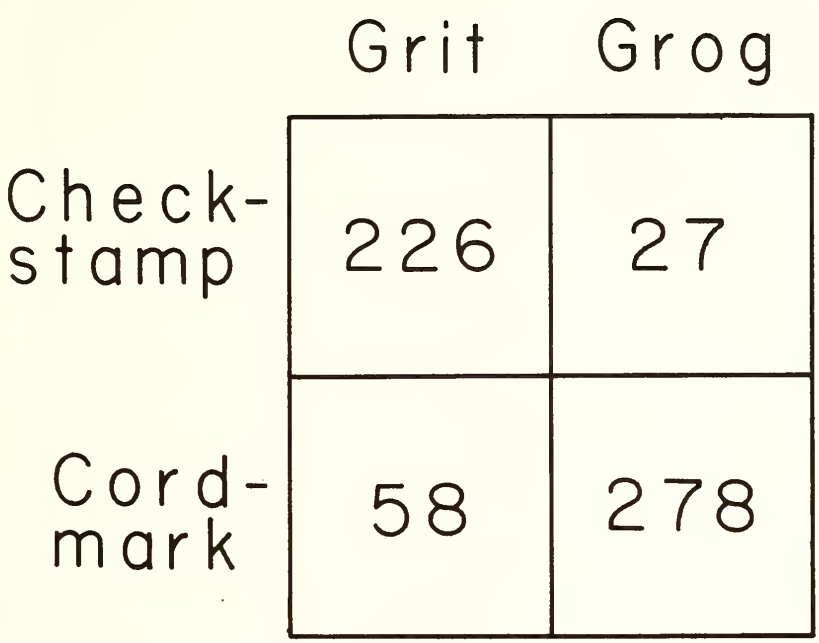



*Figure 1*

materials. If check stamped/grit pottery and cord marked/grog pottery from Kenan Field served different purposes, they may be expected to show consistent variation in any of a number of traits. The same kind of consistent variation may be seen in pottery made by different groups with access to or preference for differing raw materials and techniques of manufacture. The specific hypothesis guiding the technological analysis was that discreet constellations of physical traits would be found for each pottery category, and that those clusters of traits may be related to raw materials and/or manufacturing techniques. The point of the analysis was not to test or support one of the above explanations vis-a-vis the other as the cause of the observed trait correlation. Rather, the purpose of the technological measurements was to see if the distribution of traits was non-random, in which case either explanation—"manufacturing group" differences or functional differences—is possible.

Numerous variables may be examined to form a body of data for the purpose of comparing two categories of pottery. A number of these variables were measures on 30 sherds from the check stamped/grit pottery and on 30 from the cord marked/grog pottery. The variables studied were color, coring, scratch hardness, porosity, thickness, and the particle sizes and proportions of aplastics. The data are at various levels of measurement; some are appropriate for statistical treatment and some are not. It should be emphasized that even a marked disparity in one

varible cannot be considered definitive evidence in favor of the hypothesis being tested. The interest is in patterns of the variables together. A summary of the data follows.

The first variable to be considered was surface color. On the basis of measurements done with a Munsell Soil Color Chart, four mutually exclusive color categories were set up for the samples. The color categories may be indicative of, among other things, variation in firing conditions and coloring agents in the raw clay. The latter are principally iron compounds and organic matter. The distribution of colors for each pottery sample has been graphed (Figure 2) and a Chi-square, significant at .001, indicates that the distribution of colors is not random. There is a higher

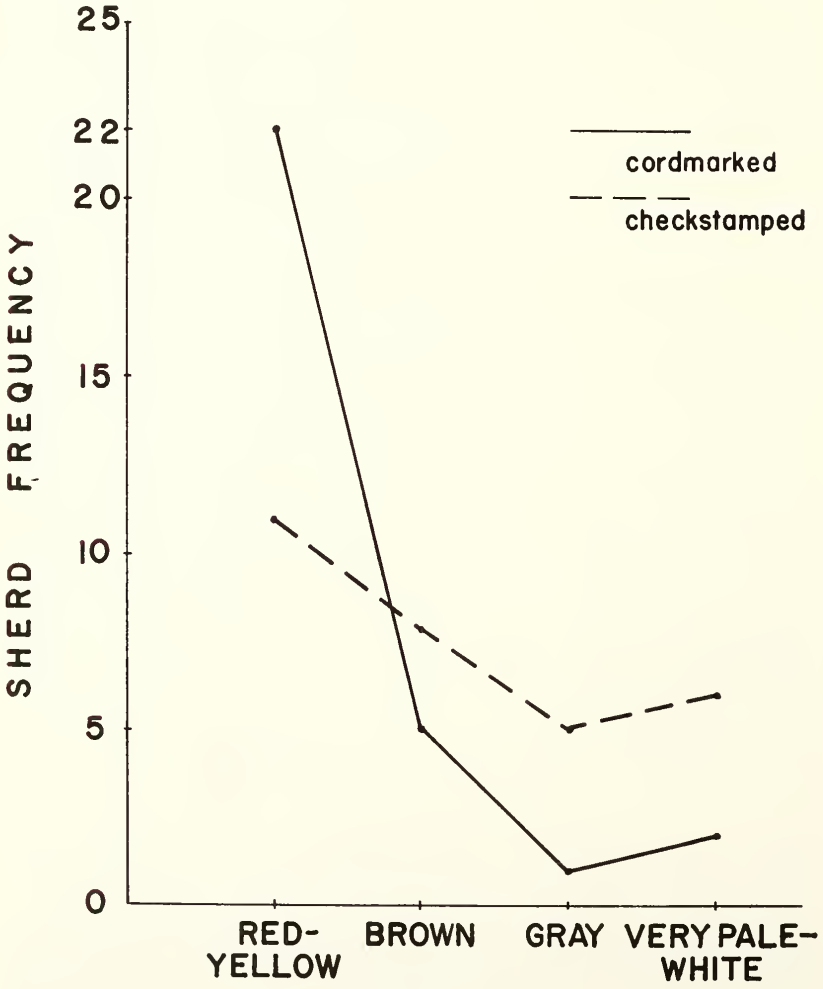



*Figure 2*

proportion of the cord marked pottery in the color categories which indicate more complete oxidation of coloring agents than there is of the check stamped pottery. Eighty per cent of the cord marked pottery appears to be well-oxidized, as opposed to 56% of the check stamped.

The second variable considered was coring. The term coring refers here to the presence of grayish or brownish colors in a sherd's cross-section, indicative of unoxidized, charred organic matter. Coring is a function of firing conditions, paste density, sherd thickness, porosity, and the initial amounts of organic matter in a clay. The sample sherds were rated from zero to five for degree of coring. Zero was 'no core,' one was 'light core,' two and three were 'moderate core,' and four and five were 'heavy core.' The results were that 50% of the check stamped sample was heavily cored, 40% was moderately cored, and 10% had no coring. The cord marked sherds overall exhibited lesser degrees of coring, with 60% moderate and 40% lightly or not cored. As with the surface color results, the cord marked sherds tend to be more fully oxidized.

The third variable was hardness. Hardness is a dimension affected by the particle sizes of the clay and aplastics. firing conditions, chemical and mineralogical composition of the raw materials, and post-depositional factors. Scratch hardness tests with Mohs' Hardness Scale yielded mean hardness measurements of 2.7 for the check stamped sherds and 1.5 for the cord marked. The maximum hardness for the cord marked group was the minimum for the check stamped.

Sherd porosity was also measured for the data set. Porosity has to do with the permeability of the clay body and is computed as the ratio of the volume of pore space to the volume of the piece. Like color, coring, and hardness, porosity is affected by many factors. The mean apparent porosity for the check stamped sample was 28.6%, and for the cord marked it was 36.5%. A comparison of the means was significant at 0.1. The cord marked sherds are decidedly more porous, a trait that may have been caused by different sizes and shapes of aplastic inclusions, more complete firing and therefore less charred matter clogging pore spaces, or a difference in the texture and composition of the raw clays employed.

Sherd thicknesses were also measured. Three measurements were taken for each sherd and the mean recorded as the thickness. The mean thickness of the cord marked sample was 0.8 cm and for the check stamped it was 0.7 cm. Small differences in thickness in handmade pottery is subject to slight variation by virtue of the manufacturing method. Ranking the thickness measurements for each sample demonstrated a great many interspersed values, thus the small variation must be interpreted carefully.

The last variables to be considered are the particle sizes and proportions. Aplastic particle sizes and quantities affect several of the preceding dimensions, including hardness, porosity and coring. The sherds were examined under a magnification of 70× to rate particle sizes by the Went-

worth Scale (Shepard 1956) and to estimate relative quantities.

In all 30 cord marked sherds and 29 check stamped, sand was the most frequent inclusion and was always rated 'abundant,' the highest frequency rating. In the cord marked sherds grog was the next most frequent inclusion type, whereas in the check stamped, grit was. There were several minor types of inclusions, but they were uniformly rare in each sample. The samples appear to carry equivalent loads of aplastic inclusions, even though one has grog and the other has grit. However, the sand in the two samples was not of the same size; the sand in the cord marked pottery is smaller than that in the check stamped pottery.

A summary of the data shows the following. The cord marked sherds show more oxidized color development and less coring than the check stamped sherds. The coring also points to more oxidation in the cord marked sample. The check stamped sample is harder than the cord marked. A reducing atmosphere as opposed to an oxidizing one may increase hardness. A reducing atmosphere would also cause dark surface colors and coring. Although there is a great deal of overlap in thickness distributions, the mean thickness of the check stamped pottery is less than for the cord marked. Finally, the two samples contain comparable loads of aplastic inclusions but not comparable size categories; the cord marked pottery has smaller sand particles.

With the preceding information the most parsimonious explanation of the group differences, in technological terms, hinges on the relative levels of oxidation in the two samples. Different firing techniques are posited as the reason for differences in color, coring, porosity, and possible hardness. Less complete oxidation resulted in larger quantities of charred organic matter in the pore spaces of the check stamped sample, which has the effect of clogging the spaces and reducing permeability. The incomplete oxidation may be caused by a reducing atmosphere which could also increase hardness.

From the data just presented, it is apparent that a number of quantifiable differences between check stamped/grit and cord marked/grog pottery do exist. These differences bear out the research hypothesis that discreet constellations of traits related to raw materials and/or manufacturing techniques exist for the two samples. Specifically, the dark colors, heavy coring, and lower porosity of the check stamped sample point to firing conditions insufficient for complete oxidation of organic matter. For whatever reason, the two pottery categories were produced in a consistently different manner, even beyond the obvious differences of decoration and aplastic inclusions.

The question now is, why would these differences exist? If functional distinctions led to the variation, at least some of the properties should relate to functional, working characteristics. In fact, porosity, hardness, and thickness—dimensions in which the samples do vary—are related to such characteristics as strength, absorbent behavior, and resistance to

weathering, shock, abrasion, and thermal stress. Therefore the explanation of functional differences as a source of physical variation cannot be eliminated.

To illustrate how the traits defined for each pottery type might be related to a difference of function, one could suggest that the cord marked pottery was a cooking ware, and the check stamped pottery for storage or container use. A potter manufacturing a cooking vessel would want an item which could withstand repeated shock and handling. By using a paste with large quantities of sand particles, a certain amount of porosity could be expected: porosity is a positive trait for withstanding the stresses of thermal expansion and contraction. A thicker vessel would be more heat retentive, another positive trait for cooking. In addition, a cooking vessel is repeatedly exposed to heat and so may continue to oxidize through usage. The Structures I and II cord marked pottery exhibits such traits, at least relative to check stamped pottery. On the other hand, a less porous vessel would be relatively more watertight, a desirable characteristic for a container. Also, a storage vessel would be subject to less handling than a cooking pot and so thiner walls might be acceptable. The check stamped pottery possesses these traits, relative to the cord marked.

It is interesting to note that in fact, cord marked pottery in Structures I and II had a relatively high frequency of association with faunal remains. This may be viewed as independent data supporting the idea that cord marked pottery at Kenan Field functioned as a cooking ware.

The viability of the explanation pivoting on manufacturing group differences must still be considered as a source of the detected patterning. Since, as had already been noted, raw materials differ between the samples, and in all likelihood manufacturing techniques do also, the possibility of separate units manufacturing the pottery can not be dismissed.

To substantiate the validity of one of these hypotheses over the other, further testing should take place. If in further excavation, for example, it were found that the two kinds of pottery had an uneven distribution in a series of residential structures, one could say the manufacturing group difference had been supported; that is, such a difference could be construed to be related to kin group differences. But at this time, we can test only the functional difference hypothesis against Crook's interpretation of Structures I and II.

Though Crook believes both were some sort of community-use structures, Structure I also looks like a residence—thus it would have served a dual purpose, as opposed to the solely community activity in Structure II. One would expect diverse types of activities in the structures to leave diverse artifact types and patterning. We have seen that this is the case through patterns of deposition, types and spatial associations of features, and types of artifacts recovered, particularly pottery type frequencies. Structure I had a much higher frequency of check stamped pot-

tery, and the situation is reversed in Structure II, where cord marked pottery dominated. Assuming that Crook has correctly assessed the existence of some functional differences between the two structures, one would expect to find a variation in pottery distribution. Since this is in fact the case, I consider the functional difference explanation to be supported by independent data.

At this stage of Kenan Field research, the functional explanation seems strongest, or at least more elegant, because it treats more of the observed differences in more detail. Moreover, Crook's hypotheses about the structures are in agreement with the functional difference hypothesis. It is important to note that Crook's ideas were developed and tested independently of the pottery data analysis. The concurrence of hypotheses arises from separate data bases. It is clear, in any case, that the investigation, beyond cursory classification, into technological properties of coastal pottery has the potential to contribute insights to a variety of archaeological problems—social, functions, and chronological.

## REFERENCES CITED


Abbot, R. Tucker
1968 Seashells of North America. New York: Golden Press.

Abbot, W. W.
1959 The Royal Governors of Georgia, 1754-1775. Chapel Hill: University of North Carolina Press.

Andrews, E. W., and C. McL. Andrews, eds.
1945 Jonathan Dickinson's Journal. New Haven: Yale University Press.

Barnwell, Joseph W.
1926 Fort King George: Journal of Col. John Barnwell (Tuscarora) in the Construction of the Fort on the Altamaha in 1721. The South Carolina Historical and Geneological Magazine 27:189-203. Charleston.

Bascom, William R.
1941 Acculturation among the Gullah Negroes. American Anthropologist 43:43-50.

Blalock, Hubert M.
1972 Social Statistics. New York: McGraw-Hill.

Bolton, Herbert E.
1925 Arredondo's Historical Proof of Spain's Title to Georgia. Berkeley: University of California Press.

Boyd, Mark F.
1948 Enumeration of Florida Spanish Missions in 1675: with Translations of Documents. The Florida Historical Quarterly 27:181-188. St. Augustine.

Braun, E. Lucy
1967 Deciduous Forests of Eastern North America. New York: Hafner Publishing Co.

Bullen, Ripley P. and John W. Griffin
1952 An Archaeological Survey of Amelia Island, Florida. Florida Anthropologist 5:37-64.

Byrd, H. J., *et al*
1961 Soil Survey of McIntosh County, Georgia. Washington, DC: U.S. Government Printing Office.

Caldwell, Joseph R.
1952 The Archaeology of Eastern Georgia and South Carolina. *In* Archaeology of Eastern United States, James B. Griffin, ed. Chicago: The University of Chicago Press.

1970 Chronology of the Georgia Coast. Southeastern Archaeological Conference Bulletin 13:89-92.

1970 Proposal to the Branigar Organization, Inc., For Archaeological Investigations on Skidaway Island, Chatham County, Georgia. Unpublished report on file in the Office of the Georgia State Archaeologist.

Caldwell, Joseph R. and A. J. Waring
1939 Wilmington Heavy Cord Marked. Southeastern Archaeological Conference Newsletter 1(5).

1939 Savannah Fine Cord Marked. Southeastern Archaeological Conference Newsletter 1(6).

Cameron, Marguerita
1976 University of Alabama, Department of Biology, Personal Communication.

Carr, Archie
1952 Handbook of Turtles. Ithica: Cornell University Press.

Chang, K.C.
1968 Toward a Science of Prehistoric Society. *In* Settlement Archaeology. K.C. Chang, ed. Pp. 1-9. Palo Alto: National Press.

Chatelain, Verne E.
1941 The Defenses of Spanish Florida, 1565 to 1763. Carnegie Institution of Washington Publication 511. Washington, DC.

Coe, Michael D. and Kent V. Flannery
1964 Microenvironments and Mesoamerican Prehistory. Science 143:650-654.

Coleman, Kenneth and Milton Ready, eds.
1976 Colonial Records of the State of Georgia, Vol. 28, Part I. Athens: University of Georgia Press.

Coulter, E. Merton
1940 Thomas Spalding of Sapelo. University: Louisiana State University Press.

Crane, H. R.
1956 University of Michigan Radiocarbon Dates I. Science 124:664-672.

Crook, Morgan R., Jr.
1975 An Archaeological Survey of Green Island, Georgia. Unpublished report on file in the Office of the Georgia State Archaeologist.
1978 Mississippian Period Community Organizations on the Georgia Coast. Ph.D. Dissertation, Anthropology Department, University of Florida. Ann Arbor: University Microfilms.

Crook, Morgan R., Jr. and Patricia D. O'Grady
1977 Spalding's Sugar Works Site, Sapelo Island, Georgia. Industrial Archaeology 12:318-385. [Reprinted in this volume.]

Dahlberg, Michael D.
1975 Guide to Coastal Fishes of Georgia and Nearby States. Athens: University of Georgia Press.

Dahn, Robert A.
1950 Salt-Water Fishing. New York: Henry Holt and Company.

Deetz, James
1967 Invitation to Archaeology. Garden City: Natural History Press.

DePratter, Chester B.
1973 Archaeological Survey of Black Island. Unpublished report on file in the Office of the Georgia State Archaeologist.
1974 An Archaeological Survey of Ossabaw Island, Chatham County, Georgia: Preliminary Report. Unpublished report on file in the Office of the Georgia State Archaeologist.
1975 An Archaeological Survey of P. H. Lewis Property, Skidaway Island, Chatham County, Georgia. Unpublished report on file in the Office of the Georgia State Archaeologist.

Ehrenhard, John E.
1976 Cumberland Island National Seashore: Assessment of Archaeological and Historical Resources. Tallahassee, FL: Southeast Archaeological Center, National Park Service.

Ernst, Carl H. and Rogert W. Barbour
1972 Turtles of the United States. Lexington: University Presses of Kentucky.

Everitt, B.
1975 Cluster Analysis. New York: John Wiley.

Floyd, Marmaduke
1937 Certain Tabby Ruins on the Georgia Coast. *In* Georgia's Disputed Ruins. E. Merton Coulter, ed. Pp. 1-189. Chapel Hill: University of North Carolina Press.

Ford, James A.
1937 An Archaeological Report on the Elizafield Ruins. In Georgia's Disputed Ruins. E. Merton Coulter, ed. Pp. 191-225. Chapel Hill: University of North Carolina Press.

Foster, George M.
1960 Culture and Conquest: America's Spanish Heritage. Viking Fund Publications in Anthropology, No. 27.

Garcia, Genaro
1902 Dos Antiquas Relaciones de la Florida. Tip. y lit. de J. Aguilar vera y comp. (s. en C.), Mexico.

Geiger, Maynard, O.F.M.
1936 The Martyrs of Florida (1513-1616), by Luís Gerónimo de Oré, O.F.M.: Translated, with Biographical Introduction and Notes. Franciscan Studies 18. New York: Joseph F. Wagner, Inc.

Georgia Department of Natural Resources
1975 The Value and Vulnerability of Coastal Resources. Atlanta: Resource Planning Section, Office of Planning and Research, Georgia Department of Natural Resources.

Golley, Frank B.
1962 Mammals of Georgia. Athens: University of Georgia Press.

Gray, Lewis Cecil
1933 History of Agriculture in the Southern United States to 1860. 2 Vols. Carnegie Institution of Washington Publication No. 430. Baltimore: Waverly Press.

Gregorie, James
1829 Observations by the Editor. Southern Agriculturalist 2:97-100.

Hammond, Harry
1896 Culture of Cotton. In U.S. Department of Agriculture Bulletin 33:255-278. Washington: Government Printing Office.

Hart, Carroll
n.d. History of Sapelo Island. Unpublished report, Department of Archives and History, Atlanta, Georgia.

Hemmings, E. Thomas and Kathleen A. Deagan
1973 Excavations on Amelia Island in Northeast Florida. Contributions of the Florida State Museum, Anthropology and History, No. 18.

Hoyt, John H.
1967 Barrier Island Formation. Geological Society of America Bulletin 78: 1125-1136.

Hoyt, John H. and John R. Hails
1967 Pleistocene Shoreline Sediments in Coastal Georgia: Deposition and Modification. Science 155:1541-1543.

Johnson, A.S., *et al*
1974 An Ecological Survey of the Coastal Region of Georgia. National Park Service Scientific Monograph Series No. 3. Washington: U.S. Government Printing Office.

Johnson, LeRoy, Jr.
1968 Item Seriation as an Aid for Elementary Scale and Cluster Analysis. Museum of National History Bulletin No. 15. Eugene: University of Oregon Press.

Ketchum, William C., Jr.
1971 The Pottery and Porcelain Collector's Handbook. New York: Funk and Wagnalls.

King, Spencer B., Jr.
1966 Georgia Voices: A Documentary History to 1872. Athens: University of Georgia Press.

Knapp, S.A.
1900 Rice Culture in the United States. U.S. Department of Agriculture Bulletin No. 110. Washington: U.S. Government Printing Office.

Larson, Lewis H., Jr.
1958 Cultural Relationships between the Northern St. Johns Area and the Georgia Coast. Florida Anthropologist 11:11-22.
1969 Aboriginal Subsistence Technology on the Southeastern Coastal Plain During the Late Prehistoric Period. Ph.D. dissertation, Anthropology Department, University of Michigan. Ann Arbor: University Microfilms.
1978 Historic Guale Indians of the Georgia Coast and the Impact of the Spanish Mission Effort. *In* Tacachale, Jerald T. Milanich and Samuel Proctor, eds. Gainesville: University Presses of Florida.

Lorant, Stefan, ed.
1946 The New World: The First Pictures of America. New York: Duell, Sloan and Pearce.

Lorrain, Dessemae
1968 An Archaeologist's Guide to Nineteenth Century American Glass. Historical Archaeology 2:35-44.

Lovell, Caroline Couper
1933 The Golden Isles of Georgia. Boston: Little, Brown and Company.

Marrinan, Rochelle A.
1976 Florida State Museum, University of Florida, Personal Communication.

McCoy, James
1828 Copy of a Letter Addressed to Robert R. Harweil, Esq. of Jacksonville, Alabama. Southern Agriculturalist 1:177-182.

McGahey, Samuel I.
1969 An Unusual House Construction in Mississippi. Southeastern Archaeological Conference Bulletin 11:6-9.

McKinley, William
1873 Mounds in Georgia. Smithsonian Institution Annual Report 1872 27: 422-428.

McMichael, Alan E.
1977 A Model for Barrier Island Settlement Pattern. Florida Anthropologist 30:179-195. [Reprinted in this volume.]

Milanich, Jerald T.
1977 A Chronology for the Aboriginal Cultures of Northern St. Simon's Island, Georgia. Florida Anthropologist 30:134-142.

Moore, Clarence B.
1897 Certain Aboriginal Mounds of the Georgia Coast. Journal of the Academy of Natural Sciences of Philadelphia, Second Series. 11(1): 4-128.

1905 Miscellaneous Investigation in Florida. Journal of the Academy of Natural Sciences of Philadelphia, Second Series. 13:298-325.

Moore, Raymond C., ed.
1964 Treatise on Invertebrate Paleontology. Part I, Mollusca 1. New York: Geological Society of America and Lawrence: University of Kansas Press.

Mueller, James W.
1974 The Use of Sampling in Archaeological Survey. Society for American Archaeology Memoir No. 28.

Noël, Hume, Ivor
1969 A Guide to Artifacts of Colonial America. New York: Alfred A. Knopf.

Otto, J. S. and R. L. Lewis, Jr.
1974 A Formal and Functional Analysis of San Marcos Pottery from Site SA 16-23, St. Augustine, Florida. Bureau of Historic Sites and Properties Bulletin No. 4:95-117. Tallahassee: Florida Department of State.

Pearson, Charles E.
1977 Analysis of Late Prehistoric Settlement on Ossabaw Island, Georgia. University of Georgia Laboratory of Archaeology Series No. 12.

Sears, William H.
1956 Settlement Patterns in Eastern United States. *In* Prehistoric Settlement Patterns in the New World, Gordon R. Willey, ed., Pp. 45-51. Viking Fund Publications in Anthropology No. 23.
1961 The Study of Social and Religious Systems in North American Archaeology. Current Anthropology 2:223:246.

Sheldon, Craig T., Jr.
1976 An Archaeological Survey of Colonel's Island, Glynn County, Georgia. Unpublished report on file in the Office of the Georgia State Archaeologist.

Shelford, Victor E.
1963 The Ecology of North America. Urbana: University of Illinois Press.

Shephard, Anna O.
1956 Ceramics for the Archaeologist. Washington, D.C.: Carnegie Institute of Washington.

Simpkins, Daniel L. and Alan E. McMichael
1976 Sapelo Island: A Preliminary Report. *In* Southeastern Archaeological Conference bulletin No. 19, Drexel A. Peterson, Jr., ed. Memphis, TN: Southeastern Archaeological Conference. Pp. 95-99.

Smith, Hale G.
1948 Two Historical Archaeological Periods in Florida. American Antiquity 13:313-319.

Spalding, Thomas
1828 On the Culture of Sugar Cane. Southern Agriculturalist 1:552-556.
1829 On the Cultivation of the Sugar Cane, Erection of Proper Buildings, and Manufacturing of Sugar. Southern Agriculturalist 2:55-63.
1829 Letter to the Editor. Southern Agriculturalist 2:100-102.
1937 Observations on the Method of Planting and Cultivating the Sugarcane in Georgia and South Carolina. *In* Georgia's Disputed Ruins. E. Merton Coulter, ed. Pp. 229-263. Chapel Hill: University of North Carolina Press. [Reprint of a publication of the Agricultural Society of South Carolina, 1816.]

Swanton, John R.
1922 Early History of the Creek Indians and their Neighbors. Bureau of American Ethnology, Bulletin 73.

Trigger, Bruce G.
1968 The Determinants of Settlement Patterns. *In* Settlement Archaeology, K.C. Chang, ed. Pp. 53-78. Palo Alto: National Press.

Vanstory, Burnette
1956 Georgia's Land of the Golden Isles. Athens: University of Georgia Press.

Wallace, Ronald Lynn
1975 An Archaeological, Ethnohistoric, and Biochemical Investigation of the Guale Aborigines of the Georgia Coastal Strand. Ph.D. Dissertation, Department of Anthropology, University of Florida. Ann Arbor: University Microfilms.

Wenhold, Lucy L., trans.
1936 A Seventeenth-Century Letter of Gabriel Dias Vara Calderon, Bishop of Cuba. Smithsonian Miscellaneous Collections 95.

Wilkes, R. L., *et al*
1974 Soil Survey of Bryan and Chatham Counties, Georgia. Washington: U.S. Government Printing Office.

Wilson, Caroline Price
1969 Annals of Georgia, Vol. I, Liberty County Records and a State Revolutionary Pay Roll. Vidalia: Georgia Geneological Reprints.

Wylly, Charles Spalding
1916 These Memories. Brunswick, Georgia: Press of Glover Brothers.

Yonge, Henry and Will. DeBrahm
1760 A Plan of the Island of Sappola Containing 9520 Acres . . . (Manuscript copy in University of Georgia Library).

WEST GEORGIA COLLEGE

STUDIES IN THE SOCIAL SCIENCES

Volume XX June 1981

# GAMES WITHOUT FRONTIERS: ESSAYS FOR A PROTEAN SOCIOLOGY

RECEIVED
DEC 10 1981
PERIODICALS DEPT.
Irvine Sullivan Ingram Library
CARROLLTON, GEORGIA

Published by

WEST GEORGIA COLLEGE

A Division of the University System of Georgia

Carrollton, Georgia

WEST GEORGIA COLLEGE

STUDIES IN THE SOCIAL SCIENCES

**Volume XX** **June, 1981**

# GAMES WITHOUT FRONTIERS: ESSAYS FOR A PROTEAN SOCIOLOGY*

Mark J. LaFountain
*Volume Editor*

## CONTENTS

| | | Page |
|---|---|---|
| Contributors | | |
| Foreword | *Robert H. Claxton* | v |
| Preface | *Mark J. LaFountain* | vi |
| Protean Principles: Explorations in the Structure and Symbolism of Healing | *Ralph G. Locke* | 1 |
| Some Historians Methods in the Analysis of Thought | *D. Lawrence Wieder* | 16 |
| The Old Courtesan: An Occasion for the Structuralist-Semiotic Research Program | *Jeffrey Lloyd Crane* | 27 |
| Season of Birth and Acceptable Science: A Discussion of Peripheral Theories | *Derral Cheatwood and Michael N. Halstead* | 42 |
| Biological Cycles and Socio-Rhythms | *Joe W. Floyd, Jr.* | 56 |
| Tacit Environmental Interactions | *Walter Schaer* | 73 |

*The title of this volume is indebted to the song, "Games Without Frontiers," written by Peter Gabriel. It appears on the album *Peter Gabriel,* Chrisma Records, Ltd., 1980.

# TITLES IN PRINT

Vol. VII, 1968, *Social Scientists Speak on Community Development.*

Vol. VIII, 1969, *Some Aspects of Black Culture.*

Vol. XI, 1972, *Georgia Diplomats and Nineteenth Century Trade Expansion.*

Vol. XIII, 1974, *American Diplomatic History: Issues and Methods.*

Price, each title, $2.00

Vol. XIV, 1975, *Political Morality, Responsiveness, and Reform in America.*

Vol. XV, 1976, *The American Revolution: The Home Front.*

Vol. XVI, 1977, *Essays on the Human Geography of the Southeastern United States.*

Vol. XVIII, 1979, *The Southeastern United States: Essays on the Cultural and Historical Landscape*

Price, each title, $3.00

Vol. XIX, 1980, *Sapelo Papers: Researchers in the History and Prehistory of Sapelo Island, Georgia*

Price, $4.00

Copyright © 1981, West Georgia College

Printed in U.S.A.

Thomasson Printing Co., Carrollton, Georgia 30117

Price, $4.00

($1.00 discount with standing orders or orders of ten or more to one address.)

*West Georgia College is an*
*Affirmative Action/Equal Opportunity Employer*

# CONTRIBUTORS

A. DERRAL CHEATWOOD received his Ph.D. from Ohio State University in Sociology and he is currently in the Department of Criminal Justice at the University of Baltimore. He has published a number of articles on juvenile corrections, art and artists, and visual imagery in society. Professor Cheatwood is co-founder and editor of the journal, *Qualitative Sociology*, and co-founder of the annual Conferences on Social Theory and the Arts. His interest in season of birth is a tangent of his focus on social theory and social psychology.

JEFFREY L. CRANE is an Assistant Professor of Sociology with the University of Hawaii at Hilo. He is presently serving as a visiting professor at the University of Notre Dame where he received his doctorate in 1979. Professor Crane has published and presented papers in the areas of sociological theory, medical sociology, and American culture. His primary interests are in the areas of interpretive sociology, language, myth, and semiotics. Currently he is working on editing a volume of essays on Hans-George Gadamer and a series of articles dealing with parents reactions to unanticipated caesarean birthing experiences.

JOE W. FLOYD, JR. took the Ph.D. in Sociology at the University of California, Riverside in 1977, and is currently Assistant Professor of Sociology at Eastern Montana College, Billings, Montana. His current research interests include the sociology of time and the formulation of explanations for human behavior based on the combination of biological and social variables. Human behaviors of specific interest include those which are related to the interaction of biological sex, gender identity, and gender roles; and those which involve stress, shift work, and family.

MICHAEL N. HALSTEAD received the Ph.D. in Sociology from Tulane University. He is presently Chairman of the Sociology Department at St. Ambrose College. In addition to teaching interests in theory, minority relations and urban sociology, he is pursuing research in the sociology of music, primarily focusing on jazz.

RALPH G. LOCKE is a Visiting Professor of Social and Administrative Medicine at the University of North Carolina at Chapel Hill, and a Research Associate at Duke University. He obtained his Ph.D. in social anthropology at the University of Western Australia. His research work and writing have mainly been in the areas of ecstatic religion, altered states of consciousness, and healing in a cross-cultural prespective. Two recently completed works with Edward Kelly of Duke are *Altered States*

*of Consciousness and Laboratory Psi Research: An Historical Survey and Research Prospectus,* and *A Cross-Cultural Analysis of Altered States of Consciousness and Psi,* both to be published by the Parapsychology Foundation in 1981.

WALTER SCHAER is a Human Factors consultant and Professor of Industrial Design at Auburn University in Alabama. He received the diploma of Interior Architecture from the Technical Institute of Berne in Switzerland, and the Master of Industrial Product Design from the Ulm Graduate School of Design in Germany. He earned the Doctor of Philosophy degree from the Walden University of Florida with a dissertation on "Experiential Design Awareness," having previously studied ergonomics at the Swiss Federal Institute of Technology and Gestalt psychology at the University of Zurich. Professor Schaer, a former project director with NASA for a conceptual space station, is now developing a humanistic design theory toward transelectronic realities.

D. LAWRENCE WIEDER is an Associate Professor of Sociology and Adjunct Associate Professor of Philosophy at the University of Oklahoma. His teaching and research interests include ethnomethodology, phenomenological sociology, and observational methods. He has conducted ethnographies of a half-way house for narcotic addicts, the counter-culture, a research laboratory for chimpanzee research, and nursing homes. He is currently studying the performance of magic. His writings include *Language and Social Reality: The Telling of the Convict Code.*

# FOREWORD

As West Georgia College publishes this twentieth volume in its annual *Studies in the Social Sciences* series, it is appropriate to consider the history and purpose of these collections of essays. Each individual issue has really been more of a book than a magazine.

The first developmental stage lasted a decade, beginning in 1962. The *Studies* series was a spin-off from the college's active continuing education program. Its purpose was to disseminate the ideas of visiting lecturers or (mainly) Georgia professors, especially to secondary schools. The Sears Roebuck Foundation provided seed money, since it was sent gratis to interested parties. Each issue had a theme, generally focusing on international education or the changes Georgia experienced in the 1960's. Editorial leadership came from J. Carson Pritchard, John Martin, Collus Johnson, and Eugene R. Huck.

The series entered a second distinct period, beginning in 1973, under the general editorship of John Upchurch. Thereafter, each volume had a separate editor and invited authors, representing a particular social science discipline. History and geography were predominant. The new purpose, while not ignoring high schools, was to give West Georgia faculty members experience in editing and writing for college level readers. National indexes and journals cited artices from the *Studies.* Readership became regional rather than local. The college's new School of Arts and Sciences began to subsidize publication.

Although this sociology volume relies upon the accumulated experience and traditions of earlier ones, it also represents some new directions. We are seeking to add non-academic authors and readers, a wider geographic distribution of subscribers, and a focus on emerging issues and methodologies. We anticipate a twenty-first volume on "Supply Side Economics and its Critics" which will also include a comprehensive index. With increased selectivity, we hope to continue to bring new scholars together in an effort to present their research jointly. At the same time, we reaffirm the original goal of conveying ideas away from campus to anyone who cares to consider them.

Robert H. Claxton
General Editor

# PREFACE

The intention of this volume is to present an interdisciplinary approach to the stretching of sociology's boundaries.[1] Each author was invited not only to recognize this, but to seize the freedom to venture creatively into unusual areas, places sociologists ignore or avoid or simply fail to conceptualize. As such, the purpose then is not to squeeze adventure into tight theoretical schema.[2] Rather, it is to formulate questions, to push horizons, to do with sociology what Max Scheler did with phenomenology, that is, to use it as a medium with which to say, "Look, over there, look at that!". Whether or not the emergent symbol systems actually capture experienced realities is always an issue, but often the latter is not as important as making tired eyes see anew. This, of course, does not mean that the quality of theory and research generating insight is to be whimsically abused by unattended flights of imagination, but only that imagination and adventure must too be celebrated. Sociologists often forget these moments in their concerns with the coalescence of thought.

The spirit of creativity is not, however, the sole impetus for this work. There is also the interaction of "forced interdisciplinary interest" and alienation. By "forced interdisciplinary interest" I refer to the shrapnel of the so-called "knowledge explosion," a factor known to all contemporary thinkers and artists. Not only is information expanding almost uncontrollably within disciplines, it is also doing so across disciplines, blurring boundaries and almost obliterating some fields, while simultaneously generating others. To attempt to remain knowledgeable requires attention to the expanding present as well as to its histories. For those not wishing to be the ones with "tired yellow-edged notecards that have never been updated," the alternative is a forced interdisciplinarianism.

But pursuing curiosity across fields points one toward an absent or future goal/object, one whose processes are often obscure and uncharted. This in itself is problem enough, but it also forces a recognition of the experience of alienation. Reference here is not so much to the Marxian notion as to the Hegelian-Sartrean rendering. Sartre noted in the *Critique of Dialectical Reason* that the products of human action tend to take on their own reality, their own force, their own necessity. There comes a point in time where the outcomes of intentional activity stand over and against their creators as hinderances to growth and the realization of potential. Sociology, or more properly sociological praxis, discovers itself burdened with limits on possible forms and types. Not the fault of any one figure or school or trend, this is the result of our efforts, especially our successes, at being rich and clear. Such outcomes constitute what Sartre termed the "practico-inert,"[3] whose effect is the atrophy of

possibility and the obstruction of freedom.

As the inviter of essays for this volume, I was driven by the effort to overcome the practico-inert in my experience of sociology. It is not that traditional or even contemporary variants have no value or offer no insight, they do indeed. But what of all the other ways in which "the social" is encountered? What else is there? That was the question posed to the participants, "What are your working on that you think to be of value, to be different, that might be good or interesting for sociologists to consider"?

Realization of the alienating force of the practico-inert is painful, particularly when answers to questions such as those above are posed. As one learns of developments, ideas, insights, etc. appearing in related or marginal disciplines, and they seem to have import for one's own, what does one do? Among several answers are, (1) become a "Renaissance person"—know as much as possible with as much depth as possible about as many things as one is able. Many of the early writers whom we now defer to as our (sociological) "masters" were precisely such people. They did not necessarily call themselves sociologists, sociology often claimed them! Writers such as, for instance, Marx, Spencer, Simmel, G.H. Mead, Kenneth Burke or Alfred Schutz felt no compulsion to restrict their energies to sociology per se, nor did they abide by any prevailing dogma. They relied rather on their own ingenuity, on their own sensitivities to symmetries, intricacies, nuances, etc.

Such responses to curiosity and its ensuing interdisciplinary quest often leads to one's forsaking sociology, with the resultant loss of potentially powerful thinkers. For those not departing the discipline, but still following this line, there are such problems as publishing one's work, getting on panels, programs, policy boards, etc., finding employment, locating colleagues with whom to share, warnings against committing "career suicide," and a host of other responses that reek of myopia and promise obscurity. The latter are particularly true this very day when sociology more and more is dominated by politico-economic factors, large universities who in toto exercise dictatorial power, scientistic restriction of vision, and other even more latent structures such as Western interpretations of reality and knowledge.

A second answer is to retain one's inquisitiveness, to probe other forms of knowing and realities, and to bring this back to bear on the very boundaries of sociology. Stretch the boundaries, broaden, deepen, redefine standard concepts. Consider possibilities and novelties as potentially relevant factors or variables. This is after all the history of sociological inquiry, the enlarging and extension of thought about "interaction", "social", "change" and numerous other concepts. This surpassing of the given and the hypostatized requires an historial rootedness, but it also

accepts as untenable that future paths are passively predetermined or that the practico-inert should reign over free praxis and occlude the totalization of knowing and being. Trancendence and higher reorganization are important moments in the sociologist's penetration of "things". Such inciting of boundaries to dilate and floresce gives rise to the title of this volume: "games without frontiers".

A wonderful summary of this very issue was offered by the contemporary sculptor, Kenneth Snelson. For years under attack by critics for producing sculptures they could not comfortably classify as artistic creations or as engineering feats, Snelson noted, "Hardening of the categories leads to art disease."[4] So appropriate a response! The intent of this volume is similar to that of Snelson: not necessarily to confuse a discipline that already scarcely knows what it is, but rather to attend to the world it looks at and to the experiences that world provides that they might become part of its working vocabulary.

The crucial insight behind "games without frontiers" is that sociological praxis has always been motivated by desire (e.g., for understanding, for manipulation, etc.), which itself is anchored in a lack. Fulfillment resides in appropriating a world exterior to the sociologist. This appropriation secretes products, eg., assumptions, theories, epistemologies, ontologies, metaphysics. The irony, however, is that these products confront the sociologist as identical with the world. The alienation inherent in this dialectic is perceptible, among other moments, when one reaches for the freedom necessary to re-see or re-appropriate the world, only to find the effort fettered by one's own creations. The free agency of an intending consciousness loses its interior possibilities for growth and transcendence in the moment of its recognition of its being captive, i.e., its being exterior to itself.

So what does this have to do with interdisciplinary study and with this volume? It raises the issue of the necessity of viligant self-awareness and a willingness to accept struggle. The latter are signs of a profound feature of human existence. As a sociological issue, when one accepts the inevitably necessary reality of struggle as the mate of freedom, it becomes a problem of what to do with boundaries and frontiers. A solution, though not all would concede it to be the only one, is games without frontiers.

Speculation and experimentation have always been among the games engaged in by sociologists as they confront desire and lack. But often these stop short of radical vision, or of ontology and metaphysical re-orientation, though they do often penetrate epistemologies, becoming consumed by technique. Speculation and experimentation are motivating forces in these essays, but so too is the simple desire to let the pre-thematic world emerge beyond given frontiers. It is a war without

tears—no vehemence or cynicism or pessimism is mandated—only the embracing of the emergent quality of freedom, of existence, of knowing. The products of such war can include paroxysm and disorder, and they can generate cynicism, ostracism, and wars with tears. Yet they can also call us to a more intelligible grasp of our experience, to a fuller understanding of just what our contexts really are, and to what sorts of relationships there are among things that are indeed important. Games without frontiers are for what is forgotten in assumption and/or for what is attendant, but not yet emerged.

Mark J. LaFountain
Assistant Professor of Sociology
Volume Editor

## Notes

[1]One notes the exclusively male authorship of this volume. Women were invited, but for one reason or another, all declined.

[2]The different systems of referencing were permitted to let each author retain his own particular style.

[3]See Sartre, pp. 130-132, 226-227 (Jean-Paul Sartre, *Critique of Dialectical Reason,* trans. Alan Sheridan-Smith, ed., Jonathan Ree, London: NLB, 1976).

[4]Quoted in *Smithsonian,* June 1981, Vol. 12, #3, p. 28.

# PROTEAN PRINCIPLES: EXPLORATIONS IN THE STRUCTURE AND SYMBOLISM OF HEALING*

By Ralph G. Locke

In the Greek pantheon, Proteus was a minor god, but one who exemplified important themes of Greek philosophy, science, and culture. For Proteus had the power of assuming whatever shape he pleased, and in this fashion he embodied the essence of human imagination in its unfettered access to forms and modes of being. In this aspect, Proteus symbolizes transcendence and creativity. Malleability of form, however, assumed another meaning. If one desired the truth, then one had to hold Proteus in one shape. He would then relent in his struggle and speak veridically. The Orphic mystics considered the god as a symbol of the primal matter from which the world was created.[1] A second, but equally important aspect of the myth of Proteus, then, is that truth as essence or invariant principle has to be won in a contest with the obdurate world of appearances, with our worlds of perception and reflection, imagination and the domains of shared meanings.

Elements of Greek culture profoundly shaped Western views of science. In the twentieth century, we find echoes of this cultural inheritance in scientific ideation and method. I am not suggesting here a linear and direct descent of cultural material; rather, the pattern is one of symbolic forms which are variously filled through historical and social transformations, but which invariantly *structure* the relationship of man and world. In scientific effort, knowledge, in all of its contingencies, is generally considered to be wrung from the fabric of the world in stringent attempts at control, limitation, and the imagined and measured inference of hidden principles. Science, and no less social science, deals with 'occult' relations beneath the apparent order of things.[2] And curiously, there is a recent confluence in the styles of mainstream science, marginal science (parapsychology, for example), and esoteric systems insofar as they share some ideas previously held exclusively of one another concerning hidden realities.[3]

My intention is not to propose that a unified science or philosophy of science is emerging; rather, the point is to sketch out some common themes in approaches to knowledge acquisition and to show that their methods and results are symbolically framed. Healing provides a focus for explorations of this relationship. Ideas about healing in this century

*I am grateful for the constructive criticism and support offered by Edward F. Kelly during work on this paper.

have been profoundly altered by concern for the mind, in the first place, and more strongly by a focus on consciousness. Mind and consciousness throw a light on embodiment, symbolism, and human action which physicalism and positive science disallowed. But in every case of inquiry there is an ineradicable problem—that of interpretation. Let me deal with this briefly in reference to the contributions of two great innovators—Freud and Jung.

For Freud, a theory of symbolism is central to the understanding of human action. To penetrate the lived-world and psyche of the patient one necessarily accounts for idiosyncratic expressions, related to patients' biography, and the contextual features of patients' communication. It was very much a case of the analysand talking to reveal the referential structure of his talk to himself. Earlier, Freud had used directive exploration of fantasy, but abandoned this and moved via free-association to the 'talking out' of fantasy associations by the patient independently. Despite these changes, the analyst's problem remained unchanged—to interpret the patient's utterances and other acts, as indicative of situated pathology, via the analyst's own (prior) knowledge of symbols and communicative process. The Freudian solution was to treat *language* as the conveyor of the hidden cipher of the psyche and the analyst-analysand relation.[4]

Language in psychoanalysis supplanted the value of imagination and the fantasy image. Fantasy remained an object of inquiry but not a method. Moreover, by focusing on the patient's expression and the analyst's detached, self-knowing presence, an illusion of objectivity was projected. The aim in analysis was to use clinical observations, self-observations if you like, as a means of regression to the pathological nucleus. Beneath many forms of expression one finds the invariant, symbolic structure. Jung, on the other hand, sought to reveal the workings of the psyche through active, imaginative self-exploration in which the analyst and patient jointly participated. While Jung shared the strategy of reduction to the pathological nucleus, both the nucleus and style of reduction varied from Freud's. Jungian analysis emphasizes reflexive exploration of fantasy in various modes and the primary value of imaginative variation of psychic content and personal expression.

Undoubtedly, both therapies appeal to persons who are verbally competent, imaginative, intelligent, and not too seriously impaired, just as is the case with Carl Rogers' client-centered approach. Nevertheless, their comparison reveals several things: (a) Freud's committed rationalism promoted the decline of the value of imagination and the ascendance of linear-linguistic understanding; (b) Jung's promotion of imagination as object and method of inquiry was done in an antirationalist framework emphasizing spontaneous, configurational insight—non-linear and intuitive; (c) both were concerned with interpretation but in a relatively uncritical

fashion; neither proposed a phenomenology of mutual understanding; (d) both were concerned with the elucidation of relatively invariant structures of human consciousness out of the kaleidoscope of communicative content, although for Jung the structure was transcedent (the archetype) and for Freud it was immanent (an unconscious psychic nucleus).

Freud's preoccupation with logical-linear processes expressed in language reveals the style of rationalism and empiricism; while Jung's orientation is more phenomenological. Neither, however, offers an epistemology of consciousness and action which includes the analysand *and* and analyst *in* the social world. thus leaving a hidden order of mutuality unaddressed. Modern anthropological and phenomenological studies of healing often seek to make this order into primary datum. In so doing, some of the patterns discussed above are repeated. For example, a phenomenological study of healing sets out to describe the range of experience available to participants in healing settings and to describe the conditions and content of mutuality (intersubjectivity) or shared meanings. Beyond this, there is a concern with the intersection that these situated meanings have with cultural symbols aimed at setting out *structures of consciousness and action.* In other words, there is an attempt at reduction to relatively invariant features of the social organization of healing.

'Relative' invariance brings us back to the issue of interpretation and the mythical guide of Proteus. The hidden order we seek to reveal in the research problem we have chosen is the hidden order within ourselves and our *relation to* our focus of attention. As Michael Polanyi has it, we know in general (as in a physiognomy) in order to know in particular.[5] Our grasping of things is always *from* a physiognomy *to* a set of focally significant particulars. So, the information we derive from our inquiry should not be the particular, but the structure of the from-to relation. We know about the world, have a familiarity with it, before we dissect it or act in it. Again, this resonates in the Freud-Jung comparison since we find that the intuitive (physiognostic) and the logical-linear (telegnostic) forms of knowing are not mutually exclusive but dialectically related.

The symbolic parallel of these modes of knowing is the bimodal pattern suggested by Langer and now von Bertalanffy: symbolic forms are either expressive-existential or discursive-linear.[6] Stylistically, they are correlated with receptive, intuitive cognitive orientation as opposed to an intellectual, active orientation.[7] Insofar as symbolism can be considered as that which provides depth and contour to our experience, then consciousness, the ontological foundation of experience, is bimodal.

Recent innovations in healing, especially in psychology and psychiatry,

exemplify the bimodality proposition in both methods of research and clinical techniques. Some therapies underpin their approach with findings of neuropsychological investigations into hemispheric functions. So, we can find proposed strategies for blocking the 'left hemispheric' operation to promote intutive, spontaneous problem-solving, either through logical-linguistic paradox or through some type of autogenic procedure.[8] However promising these clinical procedures may be, there are often two startling oversights, or, rather, misconceptions in them: (a) Healing theories often do not incorporate a theory of imagination integrated with the structure of consciousness. On occasions where such a theory is included, the quality of imaginative insertion of the clinician/researcher into the healing situation is often ignored. (b) Closely related to the first issue is the tendency of analysts to assume, quite frequently, that the content of imagery and patients' symbols is immediately transparent to the patient and the analyst—or, at least accessible in a very short time. That is, the qualities of interpretation are not examined, or even worse, not considered to be relevant. What is more, where interpretation is considered focal, then more attention to bimodality is insufficient: our recognition must be that bimodality is a *structure*, filled in such a way as to give continuity, shape, vitality, and depth to our experiences in a distinctively *social* fashion.

An intermediate conclusion from the discussion is to underline the relation of particulars and structures. The social scientist deals with actions and experiences in a world of variously shared meanings, so that each human expression is coextensively a moment in the structure of a life-world usually described by social scientists in terms of 'social order'. In other words, for all parties to a situation, experiential moments are framed in essential structures which form the configurations of familiarity and strangeness, belongingness and estrangement, and so on. We are dealing with the minimal conditions of sharing—the *natural attitude* where every actor assumes (implicitly) that the world is in some sense 'out there', available to every man, at least for all practical purposes, in the same way as it is for him.[9] As a fundamental structure of human consciousness, it contains additional metaphysical assumptions concerning being/non-being, inside/outside, temporal/atemporal, body/mind, and so on.[10] In every case, where such elements are elicited so that we may transcend the natural attitude and make it the source of data, this aim is always incompletely realized. As in the fleeting Protean transformation, the natural attitude and its content of lived experience are transformed by our own natural stance which we can only reflexively grasp (as if out of the corners of our eyes) and barely transcend.

Returning to the issue of healing, the perspective we have arrived at is a hermeneutic one. Just as Kuhn has investigated the interpretation of

scientific knowledge, method and social structure, so we are constrained to look at the social contexts of healing, healing observation, and the structures of lived experience which frame them.[11] For, just as Merleau-Ponty demonstrated in his classic critique of behaviorist psychology that there is no physiology without a 'psychology' (an assumptive frame of reference about hidden or dispositional states), so Mary Douglas has shown us that there is no image of the body which is not also an image of (some) society.[12]

## HEALING, CONSCIOUSNESS AND SOCIAL STRUCTURE.

Quite often the use of 'consciousness' is equated with a kind of radical subjectivity. In this sense it is unproductive in the analysis of human action. A more useful approach is the phenomenological one wherein subjectivity is a concern but so is *inter*-subjectivity, the sharing of meanings essential to social life. This involves considering every object in consciousness (in whatever mode—perception, fantasy, reverie, etc.) as having a subjective and an objective pole.[13] Experience is organized correspondingly according to the unique sediments of individuals' biographies which nevertheless are generally communicable and understandable out of shared language and commonalities in natural attitude. Consciousness, then, is an arrangement of part-whole relationships, and the idea of polarity is but one expression of it. Likewise, experiential moments stand in this same relationship to structural principles.

In many cultures the process of becoming a healer, and sometimes being a patient, invokes some kind of drastic reorganization of individual consciousness. Moreover, an important variable in this transition is the extent to which social structural supports exist for the change—how it is sanctioned. Becoming a healer may mean being recognizably 'ill' in some form, madness for example, and passing through this stage to a new status as a healing medium.[14] Sometimes this status and consciousness change is spontaneously achieved; it is not socially engineered. But in some cultures there are deliberate efforts to place stress upon aspiring mediums by subjecting them to situations which have contradictory or ambiguous social and psychological meanings.[15] In each circumstance, spontaneous or organized, there is a change from one natural attitude to another, and correspondingly, a different sense of the lived world emerges, a new consciousness.

These kinds of transitions amount to a qualification of the subjective by a change in the objective pole of experience where the latter is interpreted partly as social structure. In this vein, Mary Douglas has made some useful observations about the relation between states of consciousness, body-image, body control, and social structure.[16] She proposes an ideal-type analysis of social-structural types in terms of

principal symbolic emphases. I have paraphrased her description and reduced it to elements concerned with the transitions and marginalities dealt with in the discussion so far.

| | N·1 | N·2 |
|---|---|---|
| 1. | Radical differentiation between male and female qualities | Male-female differentia not radical. |
| 2. | High body control emphasis. | Low body control. |
| 3. | High social control. | Low social control. |
| 4. | Emphasis on ritual, formal rules and sanctions. | Emphasis on spontaneity. |
| 5. | Radical distinction between inside and outside (body and self). | No radical inside-outside distinction. |
| 6. | High value on consciousness control. | Control of consciousness not exalted; supports for ASC's. |

My designation of the two types as N·1 and N·2, which Douglas calls respectively conditions of ritualism and effervescence, is simply to be understood as one natural attitude and correlated social structure as opposed to another. On the one hand, N·1 is associated with a repressive culture and social structure of the kind which circumscribed Freud's discovery of the unconscious in the distinctive expression of hysterical body-consciousness. N·1 promotes one-dimensional (logical-linear) evaluations in the form of technical-instrumental judgments and a dwelling on exterior properties of things and persons.[17] N·2 is correlated with multi-dimensional and holistic (intuitive-expressive) evaluations wherein objects and persons are judged predominantly in terms of internal and contextual states and qualities. While this is a provocative typology which has some considerable substance demonstrated by Douglas' discussion of cultural symbolic forms, what is missing is a discussion of states of 'betweenness' and conflict. Specifically, it seems more likely from cross-cultural information, that transformations of consciousness will occur in conditions of *liminality,* even where a society may emphasize N·1 or N·2. Elements of both are often present, setting up conflicts of meaning and expression. Moreover, it is clear from some recent research that specific *sociologics* of contradition or paradox in a wide variety of settings will produce consciousness changes.[18]

There are two points about the way these socio-logics of conflict work which are relevant to the discussion: (a) They can be learned and applied consistently so that they become the basic structure of reality

for individual (e.g., Laing's and Bateson's studies of schizophrenia incorporate examples of this kind of learning).[19] (b) Once learned, these logics can be applied by individuals to themselves and others to produce a kind of auto-induction of consciousness change. For example, my own studies of spirit mediumship in Western societies indicate that the social structure in which many mediums operate incorporate N·1 *and* N·2 in active conflict.[20] An aspiring medium is placed in a situation of competing demands so that there are paradoxical features to his perception of himself (body and mind) and others, and their relation to inferred or 'unseen' states of being. For example, the neophyte has to learn to make accurate discriminations about the source of his experience and actions in terms of inside-outside (the embodied self), human or spiritual agency, materialistic or spiritual motives, in a context where the assumption of clear discrimination is treated suspiciously because the individual is a neophyte. The situation incorporates many of the features of the double-bind.

Differently stated, for a person to become a medium and healer they must be healed first, but healing seems always to be unfinished as long as one operations in the N·1 - N·2 conflict situation. However, returning to the learning of conflict logics of this kind, a feature of adaptation of mediums is autoinduction of altered states. How this comes about can be partially understood by the following processual model.

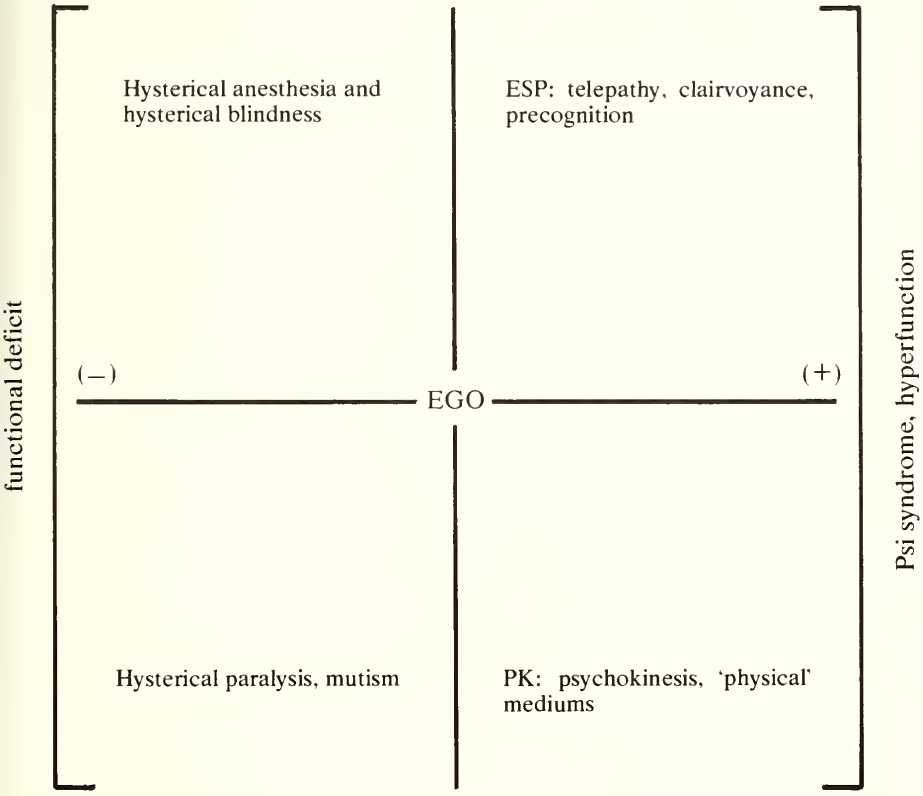
A. Those entering a N·1 - N·2 conflict situation, whether skeptical about mediumship or not, would mostly concede the *conceivability* of different realities and correlated states of consciousness. Indeed, it is a characteristic of our ordinary waking consciousness that the conceivable forms an unfilled perimeter of our experience.[21] Focal awareness in everyday terms is an immersion in the 'flow' of experiences, given order and sensibiity by our natural attitude. Insofar as it is exoteric, describing the predominant structure of consciousness in this society, 'marginal' experiences such as dreams, reveries, peripheral vision, and illusions are routinely 'struck out' or devalued in shaping the trajectory of social existence. We make few epistemic claims for these experiences, as opposed to the status they have in many other societies. They are as a flicker between the frames of experience of the real, 'out there' world. Implicit in this metaphor are assumptions about the real and unreal, inside and outside, existence and non-existence as set out earlier in the discussion.

B. The flow of experience and its correlated structure may be 'interrupted' or changed in a number of ways. In the instance of learning to be a medium, leaving out spontaneous mediumship for the moment, liminal experience is precipitated into bold relief. Quite often this is

done in a setting of reduced environmental stimulation (as in the oft-caricatured seance room) together with rhythmic breathing, postural rigidity, and other bodily attitudes, (which may involve responses to rhythmic drumming, chanting, singing, and other physical and psychological 'driving' procedures especially in traditional, non-Western societies). There is an inner attendance, a sensitivity to features of embodiment which is usually absent. Moreover, contacts with 'spirit guides' and 'other realities' often take the form of a guided, imaginal journey. The 'guide' is usually the presiding medium who may variously suggest and 'fill' elements of the trip (see Appendix). Interruption of routine experiential flow occurs through a fundamental model of *possibilism*—the self-regulated autonomy of the imagination. Freedom of expression of consciousness is exemplified in imagination insofar as its possibilism represents a transcendence of taken-for-granted experiential ordering. Moreover, in a setting where environmental input is drastically reduced and inner attention is heightened, as in a seance or some autogenic procedure, imaginative content sometimes assumes eidetic characteristics.[22] While these are relatively free flights into possible worlds, the interpretive structure of mediumistic beliefs imposes a powerful system of control and judgment. Under these conditions, it is not only the case that previously marginal experience is re-invested with attention and significance, but also the logic of situational contradiction and disruption of familiar patterns of perception block analytic functions and allow confingurational/imagistic functions to dominate.[23] The process is often described as 'dissociation'.

C. Clearly this transformation is augmented by charismatic guidance and the receptivity (suggestibility) of the student (or patient). Additionally, the learning of dissociation as set out in B takes place in a milieu which de-emphasizes intellection and critical attitudes: it is quite literally a 'letting go' of exoteric rational dominance, and a movement to a new 'flow' of experience. There is a strong resemblance between this strategy and that the holistic, anti-Cartesian style of Human Potential Movement ideation and the emancipatory social structure it claims to embody'.[4] The outcome of this kind of exposure for many is learning a logic of contradiction in a particular contextual form, and often implicitly, so that interaction tension can be self-induced and dissociation follows. In general, the tension generated moves previously marginal experiences a little further into focal awareness. Formerly marginal phenomena become *perceivable* in the flow of routine consciousness. The total movement, again an ideal type, is from the conceivable (unfillable with experience) to the possible (fillable with experience, but still marginal) to perceivable (filled in relation to focal awareness). In addition, the fact that the logic of contradiction is implicit and contextual gives it an ineffable quality

*Figure 1: Ehrenwald's diagram of the symmetrical relationship between hysterical conversion and psi syndrome manifestations*



not unlike that of mysticism.

Out of the interstices of mundaneity the healer may recover a world of profound aesthetic value. Switching to an alternative mode of consciousness which is then integrated with focal awareness in everyday circumstances, often provides a new and dramatic quality to life. Indeed, it is interesting to watch healers (mediums and non-mediums) and neophytes as they draw 'marginal' experiences (body sensations, peripheral vision, hypnagogic images, etc.) into dramatic immediacy.[25] Out of the interactional tension (Is it really me? Is it really happening? Does he really see it/believe it too?, etc.) the social canvas attains new depths of style, authorship, and symbolism.

Esoteric healers (psychics, mediums) underscore the hidden dimensions of ordinary and marginal experience in metaphors of cosmic processes—transmigration, energies, powers, occult worlds, and so on. In this respect they construct world-views which resemble 'dramas of salvation' that underlie religious healing beliefs concerned with reuniting the self (soul) with God, cosmos, or some other supermundane order. A central theme in these dramas is *separation:* within some religious and philosophic systems, man is figured as divided entity, with his focal awareness trapped in the oppressive and anxiety-laden everyday world, separated from the order of his true being. This strongly Gnostic view appears in much psychic healing and wholism. Overall, separation is expressed in the liminality which attends transitions between views of ourselves and the world—in the existential tension and potential of shamanic journeys and spiritual encounters.

My discussion is rather more suggestive than conclusive. In this same manner I shall make one last foray. Recently, the psychiatrist Jan Ehrenwald has looked again at the *extension hypothesis,* which, very briefly, states that hysterical dissociation and conversion (body control) are the obverse of ESP and PK (environmental control).[26] On the one hand there is a functional deficit in conscious control and on the other a hyperfunction (Figure 1). One interesting aspect of this conceptualization is that functional deficit is associated with N·1. Turning to hyperfunction, there is no hint that it is related to N·2 type contexts. But, it does seem realistic to assume, following the argument about situated use of logical contradictions, that environmental control (empathy and enkinesis in healing, for example) may be correlated with N·1 - N·2 conflicts mediated in something like a double-bind fashion. A range of qualifications and sub-hypotheses are opened up, but one interesting idea is this: the range of dissociations associated with blocking of analytic functions and configurational/imagistic dominance, with specific cultural content and significance 'filling' the experience, occurs more frequently in certain conditions of liminality expressed by a socio-logic

of contradiction.

The discussion has moved from science, to healing, to psychic healing, but the protean perspective remains the constant underpinning. To think in esoteric *or* phenomenological terms is rather to 'think again' to discover hidden orders of our habitual 'looking outwards.' I am reminded here of Norman Brown's observation about the value of psychoanalysis.

> Psychoanalytic consciousness, by returning to the microcosm of the inner world, puts at the disposal of the ego large quantities of libido that were previously in a state of repression. The results—insofar as psychoanalytic consciousness gets through words to reality—is to make us aware for the first time of the scope and nature of our real desires—in Rilke's beautiful phrase, the unlived lines of our body.[27]

So much of contemporary, 'pop' psychotherapy and esoteric healing has something of this effect. For example, the current popularity of past-lives readings and therapy may be understood in these terms. Not only does 'past-lives' usually imply future (though often morally contingent) lives, but invests present life with vitality, a drama of self-discovery, and sometimes a radically altered self-image. The value of symbolic and imaginal flights like this cannot be dismissed out of hand. However, there is a need for a rigorous phenomenological analysis of these kinds of activities, focussing on the intersection of subjectivity, contextual organization, and social structure.

Movement from the conceivable to the perceivable is a facet of a variety of contemporary healing techniques, especially psychotherapies using some kind of imaging procedure. Gestalt therapy, for example, induces in the therapist first, and then the patient, a 'slow-motion' presentation or interruption of routine, experiential gestalts. Passive recognition of patterns in the vivid present allows suppressed dimensions of vision, audition, and other perceptual modes to emerge, to be altered if necessary, and to be reintegrated into routine consciousness. However, within the bewildering array of similar therapies, criteria of effectiveness are rarely to be found, and where 'cures' are achieved and documented, they are often those of charismatic founders—e.g., Carl Rogers, Fritz Perls, and Eric Berne.

Evaluating psychic healing involves a similar issue of charisma. Definitions of psychic healng invokes some *ek-stasis*—'standing outside' of the natural attitude of daily life, for the healer, the patient, or both. A pressing question is: If *ekstatis* is necessary for healing, does it have peculiar qualities derived from charismatic healers? This becomes an issue of investigating the general structure of healing in relation to its

situated, idiosyncratic characteristics.

Once again the matter of interpretation arises. Where some psi (ostensibly paranormal) process is believed in by the healer and perhaps the patient as well, our first response should not be to 'strike it out' of contention, but to consider it as an implicit dimension of situational definition. Additionally, the kind of subtle tension associated with mediumship, and which sometimes partly defines the healing interaction, needs to be examined in natural settings. Mediums quite regularly report a reduction of their 'sensitivity' in laboratory settings. It is worth considering that a certain kind of interactive tension is missing from the laboratory since the psychic's ordinary situation is one of familiarity out of which auto-induction of a consciousness change (hypothetically entailing empathy, enkinesis, and possibly other psi processes) achieves its difference or 'strangeness.'

Faithfulness to Protean principles of interpretation and to the requirements of genuine empiricism, demand equally with our objects and subjects of observation that we do not *a priori* 'strike out' psychic phenomena, but studiously incorporate them in an 'as if,' phenomenological sense. In this way we retain the possibilism of psi hypotheses, and include 'conventional' alternatives to psi process explanations. More to the point, we retain an openness to the full range of ways of constructing universes of meaning through this act of bracketing, and thereby stand to generate a more adequate picture of the spectrum of human potentialities.

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time
T.S. Eliot

## Appendix

Excerpt from a field-work recording of a Spiritualist group undergoing a symbolic-imaginal journey under the guidance of a medium who remained in a possession trance throughout. The medium is speaking . . .

> Allow the powers to flow through you to draw from you all the tiredness, anxieties, worries . . . replace with peace, love, and joy . . . I ask that God's love and Thy counsel by with us this evening . . . give the peace . . . give the wisdom . . . give the knowledge.
>
> Tonight we are going to depart from our usual procedure. It is my honor that I shall be the one that shall assist you. This experiment is a partly suggestion . . . we are going to take you on a little journey into our world. Have no fear. You will not be taken over or entranced. You will be safe. It is our hope that if this experiment is successful, a link shall be made with your companions (guides). I shall have to close your eyes. Make your mind a blank. Make yourself comfortable. Relax yourselves. You are beginning to leave the room. Look into your minds' eyes and you will see this come to pass. As we leave the room, we look down upon the house. As we progress higher, a panoramic view unfolds before your eyes. In a moment we are going to make the transition. We are approaching the portals. The gates of light are standing open for you. We are now passing through these gates. There is no longer night . . . look about you . . . these are gardens and the fountains . . . the resting places of those who wish to meditate. We are walking along the straight road and the road is bordered by beautiful trees . . . the flowers, you can smell the perfume. We shall enter this little garden that we are coming to for a moment. We shall rest there. You may look about you . . . . We must now leave this.

## Notes

[1] Edward E. Barthell Jr., *Gods and Goddesses of Ancient Greece* (Coral Gables, Florida: University of Miami Press, 1971), p 144.

[2] Claude Levi-Strauss, *Structural Anthropology* (Hardmonsworth, Middlesex: Penguin, 1972).

[3] Arthur Koestler, *The Roots of Coincidence* (London: Hutchinson, 1972).

[4] Paul Ricoeur, 'Image and Language in Psychoanalysis,' in Joseph H. Smith (ed), *Psychoanalysis and Language* (New Haven: Yale University Press, 1978).

[5] Michael Polanyi, *Knowing and Being* (Chicago: University of Chicago Press, 1969).

[6] Suzanne Langer, *Philosophy in a New Key* (Cambridge, Mass: Harvard University Press, 1963). Ludwig von Vertalanffy, 'On the Definition of the Symbol,' in Josiah Royce (ed), *Psychology and the Symbol* (New York: Harper, 1965).

[7] Arthur Deikman, 'Bimodal Consciousness,' in Robert Ornstein (ed), *The Nature of Human Consciousness* (San Francisco: W. H. Freeman, 1973).

[8] Paul Watzlawick, *The Language of Change* (New York: Basic Books, 1978). Jerome Singer, *Imagery and Daydream Methods in Psychotherapy and Behavior Modification* (New York: Academic Press: 1974).

[9] Edmund Husserl, *Ideas* [translated by W. Boyce Gibson], (New York: Colier, 1972), pp 95-96.

[10] Langer, *op cit.*

[11] Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1968).

[12] Maurice Merleau-Ponty, *The Structure of Behavior* [translated by Alden L. Fisher], (Boston: Beacon, 1967). Mary Douglas, *Natural Symbols* (London: Barrie and Rockliffe, 1970).

[13] Husserl, *op cit.*

[14] John Beattie and John Middleton (eds), *Spirit Mediumship and Society in Africa* (London: Routledge, 1969). Fleicitas Goodman, Jeanette Henney, and Esther Pressell, *Trance, Healing and Hallucination* (New York: Wiley, 1974).

[15] E. Fuller Torrey, *The Mind Game* (New York: Emerson Hall, 1972).

[16] Mary Douglas, 'Social Preconditions of Enthusiasm and Orthodoxy,' in Robert F. Spencer (ed), *Forms of Symbolic Action* (Proceedings of the American Ethnological Society, Spring, 1969).

[17] Herbert Marcuse, *One Dimensional Man* (London: Sphere, 1969).

[18] Watzlawick, *op cit.*

[19] Ronald Laing, *The Politics of the Family and Other Essays* (New York: Random House, 1969). Gregory Bateson, 'The Birth of a Matrix or Double Bind and Epistemology,' in Milton Berger (ed), *Beyond the Double Bind* (New York: Brunner/Mazel, 1978). Gregory Bateson, 'Toward a Theory of Schizophrenia,' *ibid.*

[20] Ralph G. Locke, *The Precarious Vision* (Unpublished address to the Founders' Day Conference, Physical Research Foundation, Duke University, 1979).

[21]William James, *Principles of Psychology* (New York: Henry Holt, 1980)

[22]Akhter Ahsen, *Psycheye* (New York: Brandon House, 1977).

[23]Watzlawick, *op cit.*

[24]Robert Wuthnow, 'The New Religions in Social Context,' in Charles Glock and Robert Bellah (eds), *The New Religious Consciousness* (Berkeley: University of California Press, 1976).

[25]Raymond Firth, 'The Fate of the Soul,' in Charles Leslie (ed), *Anthropology of Folk Religion* (New York: Brandon House, 1960).

[26]Jan Ehrenwald, *The ESP Experience* (New York: Basic Books, 1978).

[27]Norman O. Brown, *Life Against Death* (Middletown Conn: Wesleyan University Press, 1959), p 152.

# SOME HISTORIANS' METHODS IN THE ANALYSIS OF THOUGHT

By D. Lawrence Wieder

How are texts, speech, gestures, bodily movements, and artifacts understood as expressions of thought? This is a question that can be asked about the "methodological practices" of the layman, the member of society, the academic practitioner in the social sciences and humanities (e.g., the historian, sociologist, psychologist, or literary critic), and of the societally embedded professional (e.g., the judge, the policeman, or the clinician). Embedded in common-sense thinking as they are (see Garfinkel, 1967:1-33, 76-103; and Zimmerman and Pollner, 1970), the practices of investigators in the social sciences and humanities may profitably be examined for their bearing on the "methods of understanding" in general. The "immensely various methods of understanding . . . [have been identified by Garfinkel (1967:31) as] the professional sociologist's proper and hitherto unstudied and critical phenomena." They are specific phenomena for that form of inquiry known as ethnomethodology which he developed and which serves as the motivating framework for this paper.

Here, some methods whereby historians grasp and reason with the thoughts of historical figures are examined. The data for these reflections and the initial occasion for embarking upon them was provided by a colloquium I attended in 1978, at York University in Toronto, entitled "Consciousness and Group Identification in High Medieval Religion, Historians and Social Scientists in Dialogue." I had been asked to direct my inquiries, as an ethnomethodologist and an ethnographer, toward the writings of the prominent historians of the medieval period that were presented to the symposium. The work of Bynum (1978), Constable (1978), Egan (1978), McGinn (1978), and Russell (1978), serves as the data base, the exemplars for my own inquiry.

I began my reflections by employing the foil of juxtaposing historical research with their contemporary American sociological counterparts. I was struck with the comparability of the historical and sociological focus. Similar or identical questions were addressed by both sets of scholars. Just as I, as a sociological ethnographer, might ask about the belief system of "hippie freaks" in 1972, a historian could ask about the belief system of a group of monks in 1170. Further, many of the subsidiary questions and most of the concepts also appeared to be similar. Closer readings, however, showed me some very distinctive features of the historians' work. Through a set of public practices of "reasoning through" the content of an expression—a view or theory put

forth by a historical subject—the historican focuses on the ideal contents of the expression. The sense of the view, its reference, what it implies, and the like are made explicit topics of inquiry. Further, chains of reasoning whereby the historian discovers or uncovers these contents is made visible for the reader of his or her text.

Whether or not they explicitly recognize it, the historians' practices, through which they interrogate, enrich, elaborate, and extend the various senses that can be drawn immediately from the expressions of historical subjects, focus their investigations on the structure of the subject's "ideas" as they have been put forth "for anyone." The historian investigates an idea or view by "reasoning with" the historical subject, "reasoning on behalf of" the historical subject, and "reasoning through" an idea, irrespective of its being voiced by anyone.

*"Reasoning With"*

When I began to closely examine the papers, I was struck with the extent to which the historians "commune with" their subjects. How "alive" the subjects are for them, how free they are to represent their subjects' views, to extend their reasoning, to speak to the objective character of their subjects' life-world beyond that which those subjects actually directly described. They are freer to describe the world of Joachim, for example, than sociologists are to describe the world of those subjects with whom they can actually converse. They are freer to draw out implications from the writings of a twelfth-century abbot than sociologists are to draw out the implications of the remarks of a juvenile delinquent being interviewed by the sociologist. I will refer to these practices whereby one makes an idea intelligible to oneself as "reasoning with."

All of the practices of "reasoning with" that I will describe assume an intersubjective community of sorts between historian and historical figure, and the practices promote and elaborate that "community," as it were.

I call the first practice, Using "What Anyone Knows" as a Scheme of Interpretation (cf., Garfinkel, 1967:35-75; Schutz, 1962:3-47). Although all social scientists use this scheme of interpretation (Garfinkel, 1967:esp. 76-102; Zimmerman and Pollner, 1970), its use is more explicated and developed by historians as compared to other scholars. "What anyone knows" is used by laymen and scholars alike in interpreting everyday action. With it, one attributes a presumably shared body of knowledge to the other as "what they know." One supposes that their action is informed by that knowledge and that, when they speak, their talk refers to objects within that corpus. It includes all the things that any reasonable, competent member of the society knows.

This scheme often operates in the background for the historian. For example, it may be one context of meaning for interpreting a text. The text is examined by the historian who knows that the same text was also read by historical figures of interest to him. He also is interested in interpretng that figure's writing. In doing so, he implicitly and explicitly employs what he knows (and presumes the historical figure knew) about the scholarly situation of the period. From histories, he gets a sense of "what everyone knows" about the period in question, e.g., the citation conventions employed in the 1100's, the ownership of books, which books anyone might be expected to have read, etc. He attributes this knowledge, known to himself and other historians, to his historical subjects as their "what anyone knows," and thus he, the historian, at least thinks that he and the historical subject have a community in which each uses the same scheme of interpretation.

For example, since everyone who was a scholar in the 1200's would have read all available books in Latin, and that includes Joachim, all of them would have known his ideas. In light of this, the historian can "see" others' "referring to" Joachim's thought in their writings without their saying so. Further, since convention did not require, nor even permit, our form of citation, Joachim's thought would not have been cited directly. Further, the writer would have known that others knew his citation practices and the rest of his "fix," namely that the writer probably would not have had ready access to the writings themselves, so that when he referred to them, he would have had to paraphrase them, probably from memory.

Professor Bynum (1978) provides us with another example when she notes that a set of personages described in certain kinds of texts are authority figures. We can see that they are authority figures, and anyone at the time could have seen that they were authority figures. What we can see from our situation "here" is the same as could have been seen from their situation "there." Thus, the analysis we can obtain refers us back to their perceptual situation and what they meant by what they did.

The next practice is Portraying a Situation as Objective, *as* "For Anyone." The general practice has the form, "Anyone who experiences X would see Y," or "know Y," or "ask question Y." In its application, the practice takes the form, "We know they experienced X, so we may assume that they saw Y." This follows, because anyone who experienced X would have seen Y.

The historian's objective "anyone," here, differs somewhat from the scientist's "anyone." The historian's "for anyone" is an attempt to so state and to show something that it would then, from the vantage point provided by the historian, be illuminated as a particular sense for anyone. "Anyone," here, is not a mechanically conceived anonymous

being or the scientist's textbook of procedures, but is, instead, "any Western man," anyone who partakes of our past and of our cultural heritage. It is, however, a real community of historical men and women, extending into the future as well as back into the past, in contrast to the scientist's anonymous "procedures."

For example, when Professor Russell (1978) shows us the defense and "roots" of Henry's position and what it entails, he finds that Henry has only partially explicated his own position, so Russell shows us what *any such* position necessarily entails. Here, the reasoner is Anyman. The explicated position refers to what Anyman could see in interpreting the scriptures or other writings of importance to some group (p. 10-11). Russell writes:

> If one accepts the validty of the Christian message as expressed in the Scriptures, the first and inescapable (except to fundamentalists) question is the Scriptures as interpreted by whom? One can rely entirely upon one's own personal interpretation, in the belief (or the hope) that one is guided by the Holy Spirit. Or one can follow whatever interpretation is handed to one as current orthodoxy. Or one can take a middle position: recognize the responsibility of one's own conscience in interpreting the Scripture, but recognize at the same time that one's interpretation may be enhanced, or corrected, by the interpretation of others. These options have always been with Christians (or for that matter Marxists or any other group to whom a body of thought expressed in writing is of supreme importance).

Here, Russell sees and characterizes a set of options in the "objective situation"—"any situation like this for Anyman"—and then attributes these options to the now-fictive Henry as his definition of the situation.

Another practice involves Enriching Our Understanding of an Objective Situation by Examining Alternative Responses to It. For example, Professor Russell (1978) explicates Aquinas' treatment of the same issue faced by Henry to enrich and elaborate the issue—the issue of conscience and following it in one's interpretation, while being sure to inform oneself of orthodox views. This tells us more about the objective issue, i.e., the issue "for anyone," at least potentially "for anyone," since "anyone" could see it, once it was pointed out.

Another example is provided by Professor Bynum (1978:10) who makes our grasp of the content of images more precise by showing us alternative images from the same period. These would have been alternatives for the authors of the period. What one person did and what their alternatives were are enriched and elaborated for us by what another person did in the same kind of situation. The second figure teaches us

about that same objective situation faced by the first.

Other practices of "reasoning with" include Drawing Out the Logical and Quasi-Logical Implications of a View, Assembling a Single Line of Reason Out of Many Different Texts Where No Single Author Expresses the Whole View, Appropriating the Reasoning of Historical Figures and Making It Part of the Historical Analysis, Recognizing Variations of the Same View, Seeing Contradictions Between Views, and Various Forms of the Genetic Analysis of Views.

*Some Features of "Reasoning With"*

The products of "reasoning with" are our own. We cannot properly attribute these results to historical figures as their actual thinking, although we can properly attribute it to the ideas which they voiced. An analogy will be helpful to dissolve the illusion of paradox here.

Consider a bookkeeper's books. At any given point in time, the bookkeeper will have actually thought through some results (on the books or from the books) and not others. We could take his or her books and derive further results from them. We would say, "Your books say so much profit," but that does not mean that the bookkeeper knew that or had thought it through.

Husserl's analysis of the ideal content of expressions is helpful here (see Husserl, 1970, Vol. II:269-333, 1969; Cairns, 1973; and Mohanty, 1964; esp. 1-55).

In his analysis of the Husserlian view, Cairns (1973) notes the five constituents of every written or spoken expression. There is the physical affair which manifests the expression—a sound or marks upon a page. There is a psychical element, the thinking of the subject that is "intimated" or "pronounced" by the physical occurrence. There is the expression itself, e.g., a sentence, which as an ideal (not temporally individuated) occurrence can be manifested again and again as the same sentence. And there is the meaning (meaning intention and meaning fulfillment) and reference of the expression.

Several points which are emphasized by Mohanty (1964) are helpful here. The expression exists as a cultural object. It is animated by its meaning and is not an expression without it (p. 31). "The ideality of the expression is the ideality of its meaning" (p. 32). Meaning and Reference are related in that the expression refers through its meaning (p. 18). Further, the relationship between the object referred to and the fulfilled meaning is such that:

> The meaningful expression is unified with the act of meaning fulfillment in the realized relation of the expression to its object. Thus we find that the realization of the reference, i.e., the presentation or representation of the object referred to and the

fulfillment of the meaning-intention are but two sides of the same phenomenon. (Mohanty, p. 53)

Now, I can possess the objective sense of what I take to be the expression, meaning, and reference of Leo the Giant's utterance, explicating it for myself, re-performing it genetically, analyzing it, etc., but this does not mean being Leo or having *his* thought as a psychological occurrence in any literal sense.

But, just in the sense that I intend an objective content via the words on the pages of Husserl's *Cartesian Meditations,* Aristotle's *Ethics,* or Weber's *Logos* essay, I can have the objective content of expression, meaning, and reference as intended by me and perform all manner of acts through it, with it, on it, and so forth. And I may go through it sequentially so as to have its content built up for me through successive cognitive acts of my own which are motivated by successive acts of grasping the sense of the expression which is motivated by the markings on the page before me here. Just as I "think through" the operations meant through the notations on an accountant's bookkeeping books, so, too, can I do the same with sequences of notations on Aristotle's pages, or Husserl's, or my other thinkers'. When I do that, I experience the appresentative acts and cognitive-reflective acts based on the fruits of those acts as "thinking through with" Aristotle, Husserl, or others. Indeed, I often experience this "thinking through with" as being in immediate, though mediated, community with them and "have them before me now" with as much clarity as I can achieve with those persons with whom I am engaged in face-to-face relations, those whom Schutz (1964:15-19) called my consociates; sometimes I am even more intimate with them than I am with my consociates. I know these thoughts much better and in more detail than I know the thoughts of my next-door neighbors or my undergraduate students.

In "thinking through with" and in "reasoning with," we are concerned, then, with the ideal meanings and significations and not the actual acts of thinking by a psychological subject who said something. To grasp these ideal meanings of Jack's expression requires that we "reason with" Jack, filling out his thought, elaborating it by examining its reference to see, in detail, what it must mean. Here we play "situation," "reference," and "meaning" off one another after the fashion of constituents of a Gestalt-contexture (cf. Wieder, 1974:183-214). Each "evidences" the other, appresents the other, is fulfilled in the other (cf. Garfinkel, 1967: 74-103).

When we "reason with," we necessarily commit ourselves to studying the ideal content rather than the psychological acts or thoughts manifested as constituents of writing and speaking. This can easily be seen by asking, "Must Aelerod or Joachim be 'reasonable men' or strictly logical

thinkers?" Plainly not; yet when we "reason with," we must presume that they are *or* dispense with saying that our "reasoning with," is Alerod or Joachim's actual thought, or even that we have specified what they, the specific historical individuals, actually would have thought.

This gives us a form of inquiry that is more like logic or mathematics than (naturalistic) psychology. Such inquiry leads us to ask about the thinker's "situation" of thought (e.g., Galileo's scientific situation, Aelerod's theological situation, Joachim's theological situation) and to "reason with" him. Or we may ask about an idea's presuppositions, its assumptions, other ideas that are concealed in it, its foundation and "genetic" structure, etc. Our "reasoning with," here, is our thought, not theirs, but that need be no embarrassment. It reveals anyone's idea structure as an ideal structure that could be "had" by anyone, just as anyone could "have" the Pythagorean theorem.

*The Generality and Consequentiality of "Reasoning With"*

The family of practices that I have characterized as "reasoning with" plays a prominent role in our everyday lives. We employ these practices when we attempt to follow a set of instructions and find ourselves asking, "What could this next step mean in light of the circumstances that have been produced by the first three steps?" We employ them when we interpret the contents of a letter that is in response to our own writing and find ourselves asking how our own communication was reasonably elaborated to make this correspondent's response to it sensible. We employ them when we attempt to see how a rule in the faculty handbook applies to our own case. And, of course, they are the practices whereby theories throughout the academic disciplines are appreciated, brought under criticism, extended, and applied to particular cases. In all these instances, the elaborated content we produce for ourselves may have (but need not have) been actually thought through by the author of the instruction, the letter, the rule, or the theory.

Ideal objects which are constructed and applied through the practices of "reasoning with" form an important range of sociological phenomena—the specific forms of normative culture. The goals of an organization, the expectations which define any role, the content of an informal organization, the values of some group, and the content of a norm are just a few of these objects. Whenever they are brought under close scrutiny (see, for example, Garfinkel, 1967: 18-24; Leiter, 1980:190-232; Wieder, 1974:129-224; Zimmerman, 1970), they have an awkward empirical status. The sociologist must construct them out of fragmentary pieces of evidence. No societal, organizational, or group member whose conduct and reasoning is intendedly described by the goal, value, norm, etc. is likely to be able to recite it in detail. While the sociologist may specify

an application of the ideal object to some concrete circumstance, those whose lives are "governed by" the object are quite likely to generate anomolies for the sociologist—sometimes the contrast between real and ideal culture or formal and informal organization are invoked to cover the discrepancy. Finally, the ideal content is continuously expansible to cover whatever contigencies the members actually encounter. In brief, there are no guarantees that any specific content will have been actually thought through by any particular subject.

This "empirical awkwardness" is problematic whenever the analytic task requires that a view be associated with a particular subject at a particular time. When the task is defined as empirically establishing causal chains in which thoughts function as one moment, it is the real rather than the ideal content of an expressed thought which must be focused upon. Since a view contains ideal contents which can be drawn from it, but which need not be actually thought through by the subject who expressed the view, it makes no sense to offer causal explanations of the ideal content of the view by an appeal to the subject's experiences. Nor does it make sense to causally explain, in the sense of predicting, that subject's behavior on the basis of the ideal contents of an expressed view. When it is the ideal content of a norm, value, role, or belief that is of interest, it should be no surprise that the relationship between that content and some actual behavior is problematic. And, of course, this is the character of the relationship between attitudes and behavior, norms and behavior, and so forth.

This apparent "empirical awkwardness" is problematic, however, only upon the causal or predictive construal of the explanatory task. If one openly recognizes that the phenomena are meanings and that relationships among them are those proper to meanings (e.g., the relations of association and motivation in the phenomenological sense, inclusion, implication, presuppositions, etc.) and not to spatio-temporal real events, the difficulty dissolves. As a matter of actual practice, it is relations on this plane that concern the historian. Rather than formulate the connection between two items as a causal or quasi-causal relation (e.g., the greater the A, the greater the B), they are much more likely to formulate the meaning or sense relation between two items (e.g., that A is best understood as B, that C is testament to D, that E means F, that G expresses H, that I lies behind J, that K is L-like, that M is personified as N, that O is the mirror image of P, that Q represents R, or that S inspired T).

These are means of understanding and appreciating the views of our fellowman and seeing them as alternatives to our own. They invoke and elaborate an intersubjective community of fellow thinkers between investigator and investigated. In contrast, the scientistic conception of research which strives for causal-predictive connections always tends to

make investigators into "Us" and the investigated into the anonymous "Them."

## Bibliography


Bynum, Caroline. "Feminine Names for God in Cistercian Writing: A Case Study in the Relationship of Literary Imagery and Community Life," presented at the Colloquium "Consciousness and Group Identification in High Medieval Religion," York University, March, 1978.

Cairns, Dorion. "On the Ideality of Verbal Expressions," in F. Kersten and R. Zaner (eds.), *Phenomenology: Continuation and Criticism,* The Hague: Martinus Nijhoff, 1973, pp. 239-250.

Constable, Giles. "The Multiplicity of Religious Orders in the Twelfth Century: Pluralism and Competition," presented at the Colloquim "Consciousness and Group Identification in High Medieval Religion," York University, March, 1978.

Egan, Keith J. "The Search for Identity by Medieval Carmalities," presented at the Colloquium "Consciousness and Group Identification in High Medieval Religion," York University, March, 1978.

Garfinkel, Harold. *Studies in Ethnomethodology,* Englewood Cliffs, New Jersey: Prentice Hall, 1967.

Husserl, Edmund. *Formal and Transcendental Logic,* (D. Cairns, trans.), The Hague: Martinus Nijhoff, 1969.

Husserl, Edmund. *Logical Investigations,* (J.N. Findley, trans.), London: Routledge and Kegan Paul, 1970.

Leiter, Kenneth. *A Primer on Ethnomethodology,* New York: Oxford, 1980.

McGinn, Bernard J. "Apocalyptic Consciousness and Group Identification in the Thirteenth Century," presented at the Colloquium "Consciousness and Group Identification in High Medieval Religion," York University, March, 1978.

Mohanty, J. N. *Edmund Husserl's Theory of Meaning,* The Hague: Martinus Nijhoff, 1964.

Russell, Jeffrey Burton. "The Concept of the Medieval Heretic: Self-Defined and Other-Defined," presented at the Colloquium "Consciousness and Group Identification in High Medieval Religion," York University, March 1978.

Schutz, Alfred. *Collected Papers I: The Problem of Social Reality,* The Hague: Martinus Nijhoff, 1962.

Wieder, D. Lawrence. *Language and Social Reality,* The Hague: Mouton, 1974.

Zimmerman, Don H. "The Practicalities of Rule Use," in Jack Douglas (ed.), *Understanding Everyday Life,* Chicago: Aldine, 1970, pp. 221-238.

Zimmerman, Don H. and Melvin Pollner. "The Everyday World as a Phenomenon," in Jack Douglas (ed.), *Understanding Everyday Life,* Chicago: Aldine, 1970, pp. 80-103.

*"She Who Was Once the Helmet-Maker's Beautiful Wife" (The Old Courtesan).* 1885. Bronze, 19¼" high

# THE OLD COURTESAN: AN OCCASION FOR THE STRUCTURALIST-SEMIOTIC RESEARCH PROGRAM†*

By Jeffrey Lloyd Crane

*Toward Rendering Cultural Creation and Discourse Intelligible:*

The old woman is sitting.[1] She gazes toward her feet which are bracing her body upon the object of her rest. Her head is hung, although not awkwardly, upon slender shoulders and neck which reveal the muscular pronouncements of labors once undertaken. Her ponderous gaze is, perhaps, the result of thinking thoughts once experienced. Perhaps this gaze is nothing more than the anticipation of a movement under contemplation. To her spectator, the curves of her figure project the non-exacting definition of a physique no longer youthful. Yet, though her curvatures are laxed, her body exhibits a most noticeable postue of tense restraint. Between the slender shoulders and legs, the latter flexed in a bracing position, rests the loose form of her trunk. Her torso is worn with a firmness now uncaptured; a firmness now unapparent. Her small sagging breasts and moderately swollen belly provide a most remarkable, indeed a most undeniable, contrast to her other more slender features; namely her arms, feet, hands, legs, neck and shoulders.

This sole figure, resting upon a non-human object of support, is replete with resemblances of aging human flesh. The spectator that beholds the figure is immediately forced to witness a vast array of contrasts and resemblances which call to mind the "natural" processes of human aging. Behind this visual plane of surface presentation and content resides the complex, though at present undisclosed, networks of structurally interrelated elements and systems. It is through the exploration of these networks that one can *rediscover* the figure's valid presentation as an expression of cultural creation. That is, it can become possible to

---

†An essay in honor of Roland Barthes (1915-1980)

*An earlier version of this paper entitled, "She Who Was Once Beautiful: An Example of Semiological Inquiry," was presented at the Popular Culture Association of the South 6th Annual Convention on October 7, 1977 in Jacksonville, Florida. The author wishes to thank Professors Fabio B. Dasilva of the University of Notre Dame and Hernan Vera of the University of Florida for their comments on this earlier draft.

[1]The research for this essay is based on a photographic reproduction of Auguste Rodin's figure, "She Who Was Once The Helmet-Maker's Beautiful Wife," ("The Old Courtesan"), found in A. E. Elsen's text *Rodin* published by the Museum of Modern Art, New York, 1963, p. 64.

rediscover the figure's presentation whereby the depth of the presentation comprehended far exceeds the visually detectable, indeed visually determined, organization of the figure's accessible and inaccessible space.

The figure, its elements, and the voids they both fill and create, appear heavy with a volume yet to be divulged in the discourse and content of the surface presentation. As the spectator views the figure, and as he moves his gaze towards the center of its organization, the old woman begins to bulge with indications of an undercurrent of volume. Yet, the surface content does not speak of this undercurrent, nor of the existence of any other content, organization, or structuration that might render this volume [form] intelligible. This volume begins to emerge only when the spectator ceases to demand that it exist within the nexus of the figure's surface presentational dimension. Indeed, this demand that volume exist on the surface level can only force volume into a mode of existence characterized by fortuitous chance, total unintelligibility, and an irreversible totalized fragmentation. This is, of course, the logical eventuation of any endeavor to understand cultural discourse which persists in circumscribing volume and meaning to the exclusive domain of surface presentational features. And, in the interpretive instance of the old woman figure, the spectator's understanding transcends such a circumstance only to the extent that he allows, indeed encourages, the breaking apart and revaluation of the "subtle system of feints" which posit form as substance, language as meaning, sign as signified, and structure as syntax (Foucault, 1970:3).

The old woman, by gazing downward, has denied her spectator the engaging pleasure of visual reciprocity. She has, in essence, removed the foci of her spectator's gaze from the alloyed meaningful centers of organization and refocused that gaze on points which dominate her figure solely on the basis of their relatively massive character. Thus, the space surrounding her head and shoulders begins to appear void; that is, without structuring relevance and/or importance. And, this further serves to stimulate the spectator's shift in attention. Moreover, without full visibility of her figure, her right side and back are left unseen, the spectator's gaze is further diverted toward the object of her support. Her feet become quietly blended into this support that both affirms and opposes her figure. This shift in focus, which is mutually emergent with the complete absence of all visual referrent of human reciprocity, facilitates yet another transformation and refocus of her spectator's gaze. It has become impossible, at least under these circumstances, to view the figure as an organic whole. The spectator is, therefore, forced to cease viewing the figure as a totality and must divert his gaze toward selected fragments of the figure. This diverted gaze, which always

moves from the whole to the fragment without intent, is now "free" to return and scrutinize the old woman's physical disproportionments and failures in firmness. The old woman becomes, through the newly constituted structuring view of her spectator's refocused gaze, an old woman with infirmities. That is to say, in keeping with the universality of mythical discourse, the woman becomes *the infirm old woman or simply an old woman.*

The suggestion, posited earlier, that the old woman might be considering a movement now seems negated by her infirmness. It is as though for her to move would represent the antithesis of her being present. Even the thought or contemplation of movement seems to contradict her presented essence. A single gesture, a slight lift of her head or, perhaps, even an object within the grasp of her hand would rupture this representation of infirmity. The mere plausibility of such an occurrence evokes, or at least encourages an encroachment into the realm of conceptual imcompatability. Yet, without the plausibility of movement her figure is relegated to a crystalline state of being. Without the possibility of movement there is no possibility of interaction. In short, the woman has been removed from the social world. The old woman becomes "object" rather than vibrant "subject" since no amount of motion seems forthcoming. And, even if her spectator were to attempt interaction, nothing appears capable of achieving even the slightest inkling of reciprocity.

It should be noted that, within this context of fixity, the spectator shares this rigid character of inflexibility and immobility. That is, both the spectator and the woman have become objects. Perhaps, they may be located within the context or ambit of a social world but they are not active in that world so long as their "social being" is confined within and delimited by mythological discourse. Their relationship is one of object to object with only a spatial dimension. And, in this type of relationship there can be no consideration or accommodation of temporal (historical) dimensions.

Hanging head, sagging breasts, and swollen belly are all features which accentuate the old woman's infirmity. Her downward gaze and awkward positioning upon the object of her support further suggests this notion of infirmity. The blending of her feet into the massive object upon which she rests suggests a fundamental indifference to being objectified out of the gaze of her spectator. And, at the juncture where her objectification is affirmed, the lack of visual reciprocity begins to engender a new frame of meaning. It is only with a break in the old woman's social-being (competence for social relationships) that she can be fully objectified and posited outside of the subject-subject interactive framework. Through this process of objectification, therefore, she becomes

an "unengaged" old woman; an object incapable of social praxis.

The old woman's infirmity and disengaged character are more than simple significations of defeat to the ravages of old age. To view them as such is to uncritically accept a social metaphor which contains elements of bad faith. Through her arms, legs, and slender shoulders, with their muscular definition, one begins to sense an essential element of beauty. It is here, perhaps, that infirmity and disengagement translate into naturalness. And, it is at this point that motionlessness can be translated into rest. This translation of the conditions of her posture would facilitate a release from the apparent rigidity of meaning which ensues from an exclusively synchronic reading of her figure. The promise, albeit the hope, of fluidity and the associated capabilities of structual innovation and social praxis are located primarily in the more temporally dynamic diachronic dimension of her structuration. However, neither of these dimensions can be taken in isolation. The old woman becomes intelligible only when both of these dimensions are simultaneously reckoned with and their interaction taken as a unit of analytical consideration.

At this point we can no longer lend much credence to the "authenticity" of the figure's surface presentations and representations. Moreover, all debates as to which interpretation and/or message most adequately renders the figure intelligible are, at best, misleading. We are not, therefore looking at an old woman reflecting upon her lost youth or beauty; nor are we, as spectators, gazing at an old woman passively engaged in the process of aging. These notions are social interpretations, phenomenological metaphors, and elements of mythical discourse which have been forced to stand in the place of structural realities. Moreover, they have taken the place of structural realities not as alternative realities but as structure itself. What is actually before the spectator is a figure of a woman; to be even more exact, the spectator is confronted by a photographic image of a figure of a woman (Barthes, 1977). Taken by itself, however, this figure has little or no social importance and must be "read" if it is to acquire social relevance or meaning. Furthermore, the figure must be read if it is to be comprehended on the level of the individual spectator. The act of reading, therefore, is a multi-dimensional process involving both biographical and historical factors. In addition, the act of reading involves the mutual emergence and reliance (interaction) of these biographical and historical factors. It is at this level of mutual emergence where the full range of possible discourse resides. It is on this level, moreover, where we see an old woman, beauty lost, and the passive acceptance of the aging process. By examination of these messages, and the numerous others that support, oppose, and remain irrelevant to these, one can begin to sense the futility of presupposing the truthfulness of any single category of interpretation over the remaining categories.

In the final analysis, categories and/or dichotomies predicated exclusively, or in large part, upon the elements of the surface presentation are especially suspect as to their authenticity.

The central task of the analysis becomes one of deciphering the underlying laws of construction and reconstruction that provide the foundation for this figure of the woman. The figure's position, location on the page, background, title, etc., all provide useful references or landmarks. However, these are incomplete references. The relationship of these elements to the whole figure is not perfect. Thus, a discourse of comprehension predicated solely upon these surface features proves altogether inadequate. The surface features of all cultural discourse inevitably prove to be inadequate in rendering the discourse comprehensible. Moreover, it does not matter whether these surface features are interpretive in nature, as was the case with those discussed earlier, or whether they are physical and seemingly objective in nature as those presently under discussion. In both instances, these features when taken by themselves as a means of comprehending cultural discourse result in distorted understanding. Moreover, the language subsumed under such discourse is, for all practical purposes, infinite in its relation to the figure (i.e., photographic reproduction of the sculpture). It is therefore necessary to take as the point of departure for the analysis this disjuncture between vision and figure and/or between figure and language. To start here, rather than assuming a perfect correspondence not in evidence, allows for a more intelligible comprehension of the "Old Courtesan." This is essential in that it facilitates a new compositin of the "Old Courtesan" which derives knowledge of the figure's initial rules of *construction* through a process of *decomposition* and synthetic *reconstruction.* This process, moreover, ultimately restricts all analytical considerations to the *relevant* structural elements of the figure by circumscribing the analysis to a situation or posture of immanence (Barthes, 1970:96).

## THE FIGURE

The figure may be viewed as centering around two axes. The first is a vertical axis that cuts through the center of the figure and includes: head, torso, and the figure's object of support. The second, a horizontal axis, includes: the figure's legs, hips, and the upper portion of her object of support. The vertical axis actually dominates the figure and provides the basis for comparison and organization. Within the parameters of the vertical axis one can locate the surface evidence of age, of times once different, of flesh once firm. Moreover, it is in this axis where the anatomical features traditionally and classically associated with beauty find their articulation. This is perhaps best exemplified in the fact

that the woman's figure is naked.

The woman's breasts and mid-section are presented in such a manner that they become indicative of human weariness. This, of course, corresponds with her hanging head and the resemblances engendered by the object of her support. From the horizontal axis, on the other hand, we discover slender legs, feet that merge into an object exterior to her body, and worn hands. It is, however, in this horizontal axis where contrasts begin to emerge most clearly. Thus, while the old woman's legs, feet, and hands all indicate the process of human aging, these same features also reveal a clear definition of human anatomy. The slendering of these features has brought into being a clear, almost sharp, delineation of the human body. This is found also in her arms, which parallel the vertical axis, and her shoulders which are part of this axis. All the lines of composition, when taken as a whole, offer the figure a series of conjoined and conflicting messages.

It must be stressed that, for the process of rendering the figure intelligible, there are two sets of messages that assume a special importance in the interpretive act. First, articulated in the horizontal axis, is the message complex which posits human aging as the equivalence of a lack of definition in the human form. This is, of course, a notion which is historically rooted in the classical tradition's perception of what constitutes human beauty and natural beauty. Secondly, the vertical axis presents the inverse message; namely, age and the aging process brings a clear definition of human features. A clearer definition, that is, of human features than is found in other periods of the human life cycle. And, associated with both of these axes is the notion that definition (distinction) is the foundation of all that is natural; perhaps, of all that is beautiful.

It was established previously that one of the figure's major structuring principles involved a break in visual reciprocity. The figure's position tended to convey the absolute infirmity of the aged composition. However, beneath this and ready to surface at any moment was a completely restructured figure. This "new figure," or the potential for the emergence of a new figure, was found located in the present figure's capability for active break (eclipse). The power of this potential break manifests itself in the structural disruption (destruction) that would occur, or at least is suggested and associated, with a single act of figure repositioning and movement. All the dimensions of the aged woman and the space surrounding her give rise to the symbolic notion of human infirmity. This symbolic space, with its void and content-laden aspects, and the numerous other symbolic spaces of the figure are posited on the ideational plane of existence. This plane functions as a second order level of analysis. Yet, the real point (i.e., the sociological dimension or point) of the figure is its reference to the objectified realm of human aging, that is

to say, the objective referent of the figure is the "real" process of human aging.

The ideational plane, in contradistinction to the real plane, projects infirmity, loss of vigor, tiredness, and disengagement as the central elements of the figure. This plane functions as the projector of mythical discourse (ideology). Of equal importance is the plane of the ideal which, in opposition to the planes of the real and ideational, posits beauty as the central element of the figure. Ultimately the figure is rendered intelligible only when all three of these planes are taken as a totality. That is to say, these three planes with all their facets, interactions, juxtapositions, and symbiotic relationships must be simultaneously considered and reckoned with as the foci of the figure.

In the final analysis, we have no statue before us. There are no reported dimensions of the figure other than that of a single, frontal, non-texturized view. While this is true we, nonetheless, find that the figure projects space that is both utilized and void. Moreover, this space provides us with a quasi-dimension that is multifarious and capable of becoming the subject-object of our semiological inquiry. We have a book, a page, a reprint, a title, a date, a numerical description of height, and a reference to metalogical qualities. We know for example, that the figure is presented by itself. And, the page on which the figure is presented is a study in contrasts of greys, blacks, and whites. the page depicts just a single figure with no other figure or groupings of figures to be found or even *suggested.* Everything presented is, therefore, without an immediate contrast; that is, a convenient contrast.

All the elements blend into configurations of subtle, nonrecognizable distinction that, upon closer analysis, suggest their opposites or a unity with their opposites. The elements all exist as their real, ideal, and ideational constructs with, of course, the latter two divisible into further subunits. However, as demonstrated earlier when considering a multidimensional interpretation of the figure, it is only when constant attention is afforded to the totality of elements and their interactions that the figure becomes truly meaningful. Thus, regardless of whether we select for analysis the figure as it exists on the page or the figure as imbued with its numerous interpretive and meaning networks, the guiding rules for analysis remain essentially the same. Namely, we must always attend to the *totality* and the *involved* or *relevant* dynamic processes and elements extracted from the discourse of the figure (Barthes, 1972:109-159).

The figure presents the spectator with a powerfully dominating sense of the incomplete. The woman's hand can be seen emerging mystically from behind her mid-section. The hand, reaching, waiting, grasping, remains empty. The only immediately graspable object is

another hand or the woman's opposing arm. It is this sense of the incomplete that fulfills the totality of the representation. The existing lack of closure suggests its opposite thereby rendering the "scene" complete. There is an important double relationship between the real and ideal and of the ideal to itself. In this relationship the "message" is transformed into the messages. It should not, of course, be assumed that the distance or difference between the real and the ideal is altogether negated. To assume no difference between the two would be to "normalize" the discourse and encumber it with a mythological (ideological) character. This process of normalizing the discourse is always the result of focusing exclusively upon the ideational and positing it as both form and substance. We must, instead, realize that the distance between real and ideal is mediated by a common set of structuring rules. And, we must further realize that the language of the surface presentation is the most distant element or feature to these functions/rules which structure the main of the discourse. While this observation is not apparent upon first glance at the figure, nonetheless, it is central to the debunking of myth and all mythological interpretations or renderings of this, or for that matter all cultural creation(s).

The task of rendering artistic creation intelligible necessarily involves lending a measure of consideration to the basis upon which a specific object is posited as an "aesthetic object." In the present case, Rodin's "Old Courtesan" utilizes an old woman as an aesthetic object and thematic referent for its particular creative structure. Obviously an appeal to Rodin's personal motives for selecting an old woman as an aesthetic object would not assist in the search for the social basis (i.e., sociological basis) of this creation. In the final analysis, to entertain notions of Rodin's motives for creating the figure can only lead the semiological analysis into the logical abyss of motive imputation. It must be further remembered that signs and/or language are without motive. Motive is associated only with their individual articulation in a discourse. Yet, even at this juncture, motive is in large part grounded in the non-motive space of language structures. Thus, even seemingly personal motives, which are articulated in personally selected moments of biography, can be subjected to an analysis that is unconcerned with their "personal" dimension. The focus of such an analysis is the articulation itself and its relationship to the greater non-personal language structure; it is not the motive per se.

To consider motive is, therefore, to engender a disinclination to transcend idiosyncratic interpretation. Furthermore, the insights derived from this strategy are so general that they are essentially worthless in nature. And, if these "insights" into motive were to be accepted as part of the semiological research project they could all too easily become a

most uninformative panacean explanation for all artistic and cultural creation.

The motive that must be sought is not Rodin's personal motive, rather, it is a one (perhaps this is more appropriately phrased as a structural dimension) that is grounded in the prevailing forms of discourse which dominated Rodin's historical period and were common to all cultural creations of his historical moment. It is a structure that both predates and postdates the artistic object and the artist. To endeavor to render intelligible the "Old Courtesan" by appealing exclusively to motive and/or shared meanings would force the notion of motive into a position of dominance in the analysis. Under these circumstances of analysis, motive and meaning would become a mere manifestation of idiosyncratic thought and the cultural product (i.e., art object) would become an expression or articulation (i.e., action) of that motive. While this theoretical posture has historically served rather well as the foundation for much literary and non-literary art criticism it is of little use in Human Science research. This is, perhaps, made most obvious when one reflects upon the fact that the Human Sciences proclaim, albeit proclaim is all they do frequently, *both* meaning and the condition of its creation and articulation (structure) as the very data of their research projects.

To achieve an understanding as to why the old woman is an aesthetic object necessitates refocusing the analysis upon the artistic object as it was originally presented. By negating the tendency to impute motive to the object's creator or to dwell upon meanings exclusively, the spectator is free to engage the figure in a manner which facilitates the unmediated grasp of meanings located beneath the surface. Only by breaking this bondage of immunized experience can the spectator be freed to experience the figure and render it intelligible.

This refocused gaze is revealing indeed. For through this gaze we encounter an old woman that is presented naked and stripped of all conventional, indeed, convenient, vestiges of social rank; that is, status, power, wealth, and prestige. Her figure is offered without social referents and without social pretense. So completely denuded of social indicators is her figure that even her gaze denies social reciprocity with that of her spectator's. Yet, the naked old woman, replete with inflections of infirmness, is an object that personifies the natural. Her spectator is forced by a seemingly pervasive lack of interpretive alternatives to appeal to classificatory systems that, while on the surface appear viable, actually offer scant insight into the figure's plethora of meaning networks. And, her spectator cannot help but to begin to realize the inappropriateness of equating old with infirm or an old woman with the "naturally" non-aesthetic. All semblances of social pretense are negated or rendered invalid by virtue of the figure's structural appeal to the realm of the

natural. Therefore, the social logic of equating old with infirm or non-aesthetic no longer maintains merit as an interpretive position or frame for the spectator. The figure has thus shirked its domination by the naturalized and all consuming ideological equivalences which formed the foundation of its mythological presentation and discourse. Thus, the figure has broken its bondage with mythological discourse and has successfully been reconstructed.

The debunking of myth is the first step toward a restoration of the figure's organic totality. By returning to the figure's totality the interacting elements offer a truly humanized version of an old woman. That is, the human character is exhibited through a community of unmediated human experiences founded upon a reformulation of the consciousness of value. This value is simultaneously individual and transindividual in nature. Yet, neither of these value forms could exist without the other since both exist solely as products of their mutual interaction and reliance upon one another. Prior to a break with mythological discourse these values remained subordinated to meanings which were determined by a specific ideological form of cultural activity and discourse. This process of liberating value from its subordination to mythological determination requires an initial appeal to a consciousness that is not determined in the same "spirit" or structural manner as mythological discourse. All static or determined interpretations must eventually be replaced by the more processually dynamic system of reconstructed meanings and structuring rules which are extracted from the cultural discourse itself (Kristeva, 1975:45-55). Only after this has been accomplished can we speak of beginning to render the figure intelligible or, for that matter, of beginning to know the figure. Rephrased in Hegelian terms, we might posit the notion of the figure beginning to know itself upon completion of this process. In terms more in keeping with the structuralist language, we can now state that the figure is presenting itself in an intelligible form. In reference to the "Old Courtesan" our analysis can now speak of the process of human aging as "natural" and the natural as beautiful.

There are, no doubt, artistic features of Rodin's old woman figure that have as their genesis certain 19th century canons of artistic construction. Perhaps, there are even features of the figure which predate the 19th century by appealing to artistic principles of earlier eras. It should be of no great surprise to find such principles operative throughout many segments of the figure from its basic design to the artistic nuances surrounding the figure's position on its object of support. Indeed, the total absence of these and similar general historical principles of artistic creation would be cause for some concern since it would imply that the figure is both an ahistorical and an asociological cultural artifact. And, in the final analysis, the exclusion of all such principles would have to be

investigated thoroughly to determine if it was even possible to sociologically interpret the figure. Yet, beyond these elements and features which one expects to find there are others of even greater importance for the semiological research project. These other elements are associated with specific rules of discourse and they convey messages which are not grammatically indicative, or reflective, of any principles of artistic creation. Thus, while age, beauty, naturalness, and their opposites are, to be sure, cultural themes they are not intrinsically artistic themes. It is the manner by which these cultural themes have been converted into artistic themes that has occupied our interest in this analysis.

It should be noted that this conversion of cultural themes into artistic themes was able to transpire only to the extent that a normalized myth system regarding human aging existed. The old woman's figure cannot, therefore, be viewed as a product of creative chance. Each feature of the figure, regardless of its origin, and the figure as a whole provide the spectator with a source(s) of meaning. However, the meaning, as we have chosen to define the term through usage, is relevant only when viewed through a non-mythological and unmediated lens of analysis. In essence we have constructed the figure in such a way that it will now make "sense" to us. This is not, however, the same analytical task as offering an artistic interpretation of the figure. The latter (i.e., artistic interpretation) could have been accomplished on either a mythological or non-mythological level and is, therefore, of little utility for the Human Science research process.

From the onset of this analysis we have been led to an investigation of the oppositions and resemblances found within the figure. On the levels of the real and ideal we discovered that what actually existed was not a single meaning but, rather, a series of meaning networks. The figure was depicted as transcending its resemblances when consideration was allotted to more than the objectified relationships between the levels of real and ideal. Finally, upon the realization that the figure was more than a simple composite of its surface features and elements we discovered the foundations for the actualization of "pure representation" (i.e., representation unmediated by mythological discourse). By penetrating the mythological insulation surrounding the "Old Courtesan" we began to construct a new rendition of the figure. And, as was the case with Foucault's investigation into Valazquez's creation "Las Meninas," the "Old Courtesan" began to assume a relevant meaning structure. This relevant meaning structure was posited in the form of a new representation of the figure which allowed the spectator to take pleasure in a new found intelligibility. In the final analysis the spectator had thus achieved a ". . . representation, freed finally from the relation that was impeding it . . ." (Foucault, 1970:16). Only under these conditions and circumstances,

where bad faith, metaphor, myth, and truth made universally relative (i.e., made an ahistorical phenomenon) cease to dominate the interpretation of cultural discourse, can we truly speak of enjoying and/or understanding the "Old Courtesan" or any other cultural creation.

## POSTSCRIPT

As a sociologist, the author was, quite naturally, given over to the belief that the most appropriate public forum for this essay would be one of the numerous sociological journals. In particular, the author was considering one of the so called "qualitative" journals. Roland Barthes should, perhaps, share some of the blame for this belief since it was his essay "Science versus Literature" which helped to engender it. In this essay Barthes portrayed academic disciplines as being constituted through the activities of their practitioners. Thus, armed with that special brand of naiveté which seems to be so uniquely endemic to the sociologist's mind, the author recently forwarded a copy of the essay to an editor of a reasonably respectable sociological journal. Upon receiving the piece, the editor, as is customary, farmed it out to three reviewers for their perusal and comment. As is so often the case the reviewers' comments were mixed and ran the gamut from enthusiasm to disdain; that is, one thought the essay excellent, one liked it but had reservations, and one deemed it worthless.

While there is nothing very extraordinary about this set of responses, at least on the surface, the comments of the third reviewer gave the author considerable cause for reflection. In fact, the author was so intrigued by the comments that he could not resist sharing at least some of them with his readers. For as the reader will be able to see, the comments of the third reviewer are, on at least the theoretical level, a very important issue throughout this essay. Here, then, are the observations of one anonymous American sociologist upon reading (and this term is used in its most generic sense) the previous essay.

> Although the content of the article in some ways is fascinating, I expect it is only of interest to artists and philosphers.
>
> The interpretations rendered by the author appear to be extremely speculative and difficult to support with any "data" (quotation marks are the reviewer's). I doubt if many sociologists would read this piece beyond the first paragraph. I suggest the rightful place to submit this article for publication would be an art journal.
>
> I also do not think the demonstration of the use of structuralist research in sociology is actually very clear. What is clear is that the author has a vivid imagination.

Perhaps the reviewer did not intend to convey the significations that were actually exchanged. Perhaps the reviewer was inexperienced or incompetent in the language of review. Both of these assumptions are, at best, doubtful. It would be more appropriate to presuppose that the reviewer's intent was captured in the discourse of his review. If this is true, and the author opines that it is, then the review encompasses some very interesting structural dimensions. For example, the reviewer offers his reader a most interesting series of equivalencies which might be expressed in the following manner:

i) fascination = imagination
ii) imagination = art & philosophy
iii) philosphy = art
iv) number of willing readers = readability of a text
v) technique = "data"
vi) "data" = sociology

If one were to examine the reviewer's comments even more carefully what would emerge is a series of oppositions that might be expressed as follows:

i) fascination × sociology
ii) imagination × technique
iii) artistic & philosophical interests × sociological interests
iv) speculation × "data"

Hopefully my reviewer intended only to keep this particular essay from meeting print in "his" journal. For there would indeed be considerable cause for dismay if his actual intent was to establish and enforce a new set of normative criteria for the proper practice of social inquiry. Imagine, for the moment, if all sociologists suddenly felt compelled to purge their minds and libraries of all artistic, fascinating, imaginative, and philosophical thoughts and works. The loss of pleasure, if even comprehensible, would be staggering. Further imagine if all sociological discourse had to adhere to a non-imaginative mode of presentation in order to receive legitimation from the community of scholars. Authors such as Barthes, Foucault, Gadamer, Merleau-Ponty, Sartre, and many, so many, others would cease to have a currency within sociological thought and writing. Moreover, authors such as Levi-Strauss, Mauss, and yes, even Durkheim could no longer be assured a solid position within the tradition of social inquiry.

It is, to be sure, difficult to comprehend what would remain to be called sociology if all this imagining were to become reality. For some, I suppose my reviewer would want to be included here, that tiny residual would constitute true sociology. And, of course, it would be of interest

to true sociologists. For others, and I suspect their numbers would be large, all that was worthwhile about sociology would have been negated. Few indeed would be able to derive much pleasure from working through what most assuredly would have to resemble the pathetic products of Auguste Comte's numerous lapses into cerebral hygiene. For whatever else it might be called that is exactly what the residual would be.

Some readers might be tempted to view this postscript as a rather excessive reaction to the comments of a single reviewer. However, the issue at stake here concerns nothing less than the form of sociological discourse itself. For on the one hand, the author is proposing a sociology that requires an active and engaged reader who is willing to work through a text in order to be a co-participant in its significance. Such a sociological discourse does not claim to be, nor does it desire to be, transparent and self-evident. The reviewer, on the other hand, favors a sociology where the reader is a passive recipient of a preassembled schemata for "understanding." The reviewer would replace interpretation with methodology and understanding with "data" (his quotation marks). There is not, needless to say, one correct and true side to this dispute. But if one is predisposed to hope that one of these positions carries with it a more enduring validity than the other then they will surely find an ally in the author and not in the reviewer. For in the final analysis, hope is a product of imagination and not technique.

This essay, then, is offered in a spirit of hope and resistance. Those "sociologists" who, like Roland Barthes, are committed to the importance of imagination in the process of inquiry will, I trust, discover this to be a most open essay. Moreover, those "sociologists" willing to work through a text instead of presupposing that methodology replaces work will discover that it is not difficult to ferret out and participate in the textual significance of this essay. It is only regretable that my reviewer was so preoccupied with methodological statements that he failed to realize that the world does not present itself in methodological terms. One might be tempted to say that this is a most ironic situation; that is, when a preoccupation with rules for discovering meaning actually contribute to the loss of meaning.

## BIBLIOGRAPHY


Barthes, Roland

1977 Image, Music, Text. New York: Hill and Wang.

1975 The Pleasure of the Text. New York: Hill and Wang.

1972 Critical Essays. Evanston: Northwestern University Press.

1972 Mythologies. New York: Hill and Wang.

1970 "Science Versus Literature." In Michael Lane, ed. Introduction to Structuralism. New York: Basic Books, Inc. pp. 410-416.

1968 Elements of Semiology. New York: Hill and Wang.

1966 System de la Mode. paris: Editions du Seuil.

Burnham, Jack

1973 The Structure of Art. New York: George Braziller.

Foucault, Michel

1970 The Order of Things. New York: Random House.

Kristeva, Julia

1975 "The System and the Speaking Subject." In Thomas A. Sebeok, ed. The Tell-Tale Sign: A Survey of Semiotics. Lisse: Peter de Ridder Press. pp. 47-55.

# SEASON OF BIRTH AND ACCEPTABLE SCIENCE: A DISCUSSION OF PERIPHERAL THEORIES

By Derral Cheatwood and Michael N. Halstead

There is a small but growing body of literature concerning the relationship of season of birth to subsequent life events. The available material spans the continuum from metaphysical speculations on astrology to sophisticated medical analyses, but the fact that such a literature exists at all and the reality that scholars from a variety of disciplines continue to do research on the topic suggest that there is something here worth considering.

The empirical studies of seasonal effects on social behavior are few and far between, the discussions of theoretical possibities even rarer. The absence is most pronounced in modern American social science with its stress on mass production and main street empiricism rather than open ended intellectual curiosity. Apparently this has not been the case in Europe.

> In recent decades, interest in psychological biometerology—the influence of weather and climate on human mental processes—has surged among European scholars but . . . the subject itself has received little attention in America . . . . For psychologists and sociologists concerned with patterns of behavior in our own society . . . the passage of the seasons is almost completely ignored (Rubin: 12).

The correlation of time of birth to other variables has been documented in a number of studies, but the observation has been left suspended on the periphery of the research because there is no acceptable explanatory model to account for it. The suggestion that such correlations may have a reasonable and legitimate explanation derived from the theoretical foundation of sociology is almost heretical, but the discovery of such correlations is certainly nothing new. The first maxims relating an individual's birth date to possible destiny appeared around the fifth century, B.C., and the first astrological maxims date back to 3000 B.C. (Gauquelin, 1967: 22-24). Any theory which survives and prospers for 7,000 years deserves consideration, and the possibility that the proponents of the theory, whether explaining them correctly or not, may be observing, documenting, and predicting actual regularities or relationships warrants more than mere passing curiosity.

There are two widely recognized foundation works on time or season of birth, Michel Gauqelin's *The Cosmic Clocks* and Ellsworth

Huntington's *Season of Birth.* Gauquelin observed that scientists had long been fascinated with the possibility of the relationship of birth to subsequent events and noted that: "One of Kepler's works, the *Teritus Interveniens,* carries the following inscription for a motto: 'A warning to certain theologians, physicists, and philosophers . . . who, while rightly rejecting the superstitions of the astrologers, ought not to throw out the baby with the bath water (1967: 47).'" However, it was Ellsworth Huntington who first systematically and thoroughly researched season of birth and investigated its relationship to such factors as length of life, occupation, and success.[1]

> The season at which people are born has far greater importance than is generally supposed. At certain seasons . . . the births of persons who achieve distinction rise to high proportions. Such conditions indicate not only that reproduction is stimulated at certain seasons, but that children then born are more vigorous than those born at other times (1).

Significantly, Pinter, Peterson, Huntington, and Gauquelin all agree that season of birth relates to success or genius.

> Pinter . . . and later Petersen, collected several thousand birth dates of famous people from *American Men of Science* and the *Who's Who.* It appears that the month of birth is related to whether one will become in the future a person of highest eminence. This is also Huntington's opinion: 'The data support the idea that season of birth bears a close relation with genius and eminence (Gauquelin, 1967: 180.)'

Ironically, however, not only do the great or the eminent appear to be more likely to be born in the winter, but the mentally disordered and defective as well. The relationship of season of birth to mental disorder and disease is, in fact, one of the most thoroughly and critically investigated areas in this topic. The research in these cases has not only disclosed such relationships, but has begun to develop causal models of explanation based upon conditions during pre-natal development. A 1977 study of schizophrenia by Torrey, Torrey and Peterson concluded that: "The cumulative evidence would appear to establish more firmly a winter and spring seasonality of schizophrenic births in northern Europe and the eastern United States (1069)." In their review of the literature they noted research done in both hemispheres and three continents confirming this relationship (Torrey et. al.: 1065). One of the earliest studies of this phenomenon remains one of the most comprehensive in its search for explanation, and is an exemplary use of scholarly imagination to support an unexpected hypothesis.

> In studying the admissions of mentally defective children, born in the years 1913-1948, to the Columbus State School, it was found that significantly more had been born in the winter months, January, February, and March. Since the third month after conception is known to be the period during pregnancy when the cerebral cortex of the unborn child is becoming organized, damage which occurred at that time could affect intellectual functioning. The months when this might happen would be June, July, and August, the hot summer months, when pregnant women might decrease their food intake, particularly protein, to dangerously low levels and consequently damage their developing babies. If this were so, one would expect that hotter summers would result in significantly more mental defectives born than following cooler summers. This was exactly what was found to a highly significant degree. (Knobloch and Pasamanick: 1207)

By a deft application of Occam's razor, we may suggest that children born in the winter are simply more likely to be deviant, a result highlighted by the fact that there are fewer children born in this season. In short, children born in the summer are more normal statistically, psychologically, and sociologically, while those born in the winter are more likely to be out of the normal mold, whether positively or negatively.

Other scholars have attempted to test particular astrological propositions in relation to accepted social psychological constructs with strikingly mixed results. A positive relationship between sun sign and occupational choice has been demonstrated by Cooper, Smithers and Cooper, and Cooper and Smithers, while Farnsworth, Bok and Mayall, Barth and Bennett, and Gauquelin (1967, 1969) produce research to the contrary. Bok has produced evidence that there is no relationship between success in one's occupation and time of birth, while Gauquelin (1967, 1980), Huntington, Petersen and Pinter indicate the opposite. Investigating the reliability of astrological predictions, Clark, Mayo White and Eysneck, Pellegrini, and Wendt all suggest that there is a relationship between astrological predictions of personality types or sun signs and actual personality components, but Silverman, Silverman and Whitner, and Tyson find just the opposite. Only in regard to schizophrenia, mental deficiency, and intelligence does there seem to be almost universal agreement that there is some relationship between these conditions and season of birth.

Barth and Bennett, Cooper and his associates, and Cheatwood and Halstead have all used military personnel in their analyses and, depending upon the characteristics of the population examined, have produced differing results from their analyses. Barth and Bennett, employing

United States Marine Corps enlistment data, concluded that their "empirical evidence offers no scientific support for the predictive power of astrology with regard to military occupation (237)." Cooper and Smithers, on the other hand, examined the officers' ranks in the British and American army and found that "the similarity of the British and American data is remarkable. The curves are almost identical with [birth peaks] in the summer and autumn . . . [and] we have been concerned to establish that seasonal patterns in birth-dates do exist (64-66)." The research of Cheatwood and Halstead tends to support the latter view without necessarily contradicting the former. Using an elite sample we found a positive correlation of military eminence with winter births, but drew no conclusions as to the applicability of our materials to the military as an occupation.

Within the discipline of sociology, Marcello Truzzi has produced the most extensive review of the sociological literature and much of the particularly scant material coming from the field. But by far the most thorough general investigation of astrological fastors and a wide range of social, psychological, biological, chemical, and other phenomena is to be found in the 1977 publication *RECENT ADVANCES IN NATAL ASTROLOGY: A CRITICAL REVIEW 1900-1976.* The monograph is extensive in its coverage and detail and although the overriding conclusion supports the influence of natal astrology, the paradox of contradictory findings is still evident.

There are, of course, criticisms of these findings and of the explanations proffered (see particularly Bok, Bok and Mayall; Jerome 1973, 1975). Most of the critiques of the research finding season of birth correlations, unfortunately, seem to ignore Berger and Luckman's sound argument on the role of the relationship of modes of explanation to empirical regularities.

> For example, it may be proposed that individuals born on certain days of the month are likely to be possessed . . . . The presupposition for such discovery is simply that the outside observer is willing to employ the conceptual machinery of the indigenous psychology for the inquiry at hand. *Whether he is also willing to accord that psychology a more general epistimological validity is irrelevant to the immediate empirical investigation* (italics ours 177-178).

The critics are far from willing to accord most of the models suggested a more general epistemological validity. Lyall Watson cites Spencer-Brown of Cambridge who suggests that deviations from chance in such experiments may be caused by an as yet unrecognized factor that affects randomness itself (254). He also cites another critic who dismisses Gauquelin's thorough work as "the absurd expression of an

absurd experience (57)." Unfortunately, in their attempt to safeguard the gates of science even the most professional of the critics have ignored the repetitive discovery of empirical regularities having to do with the relationship of season of birth to other factors.

According to Milton Friedman, "The ultimate goal of a positive science is the development of a 'theory' or 'hypothesis' that yields valid and meaningful (i.e. not truistic) predictions about phenomena not yet observed (13)." Further, "the relevant question to ask about the 'assumptions' of a theory is not whether they are 'realistic,' for they never are, but whether they are sufficiently good approximations for the purpose at hand (15)."[2] If, in fact, statistical regularities can be observed between birth time and success in occupation, it may mean that the concepts of a theory such as astrology are valid. More importantly, it may mean that such regularities are real, and that our failure is in not having theories adequate to offer reasonable explanations.

Such intellectual myopia has hindered the development of potential explanatory models by making it almost impossible to publish research reporting correlations of season of birth to subsequent behavior, much less research which suggests that no such correlations exist or that they are insignificant. Since "everybody knows" such a suggestion is nonsense, the argument seems to run, why publish material confirming the obvious? Thus, those who are genuinely curious or interested in the phenomenon find that they must repeat the errors of others and discover that not only is there little audience for their work, but that there is no forum for carefully designed and executed research or carefully formulated theory against which to test their ideas and arguments. If, however, we will simply hold our prejudices at arm's length long enough to accept the probability that there are significant relationships between season of birth and some subsequent life patterns, we may begin to act like scientists again rather than monks who have found their monastery invaded by crazy men. This means that we will have to question why such a correlation exists. Is the actual time and process of birth the key, as unsophisticated astrologers might suggest?[3] Or, more likely, is it the fact that there are social, economic, psychological, and physical effects both preceding and following the point of birth which will vary by virtue of the season in which birth occurs. We believe that the latter possibility is viable enough to warrant consideration by legitimate social scientists.

### Beyond The Data, Beyond The Fringe — Competing Models of Explanation

What is necessary to understand social life is a genuine integration of concepts devoted to an understanding of the subject matter, not a vested interest in some sub-discipline which would pry and pound

content matter until it fits within the structures available. The foundation of a theory may be constructed with crude concepts as raw material and the heavy tools available for rough work, but the finishing touches of conceptual integration require a jeweler's instruments. Regretably, we are still adherents to the bigger hammer school of sociology and do our fine finishing work with crowbars. In reference to one of our most pervasive and revered tools, LaMont Cole has made an interesting observation on statistical methods.

> Biologists commonly award that certificate of accuracy known as "statistical significance" to any experimental result that has odds of 19 to 1 against its occurrence as a result of chance alone. Consequently, it appears that anyone who has experimental data and sufficient patience to compute different indices and to match these with several independent environmental fluctuations should have a reasonable expectation, in 20 or so trials, of obtaining at least one "statistically significant" result (22).

We are in the position in this section of opening a Pandora's box. If we are, in our sociological studies, to honestly assume randomization of the data and thus test this randomization, then we must also assume that for every 100 statistical tests we perform, we will find 5 results significant at the .05 level and 1 at the .01 level. This is, in fact, the very axiom that makes statistical research possible.

In any research, then, the researcher should report how many total statistical tests were performed, for it is only when we know this that we know what the probability is of finding the number of statistically significant results that appeared in the actual research. However, one other confusion is still apparent. If we performed 500 chi squares and found none of them to be significant, then by our current principles we would reject the results. Yet the laws of randomization and probability state that out of those 500 tests we should have found 5 .01 results and 25 .05 results. This means that the fact that the results were not significant must, in itself, be significant, since something must be operating which keeps the results such that they appear random when they should appear significant.

The Pandora's box is obvious as is, to continue the metaphors, the massive Gordian knot this would tie around sociological research. We will only pose the problems and assume that a legion of sociologists armed with intellectual short swords will come thrashing and chopping to the rescue.[4]

For our purposes the dilemma is more immediate and, in the long run, unsolvable, although there is an immediate conclusion which is of major import.

Any group of findings, any set of statistically significant results, can be regarded as true or valid only within some specified theoretical framework which can bring meaning to them. This relates to the nonsense of data speaking for themselves. Things speak or communicate only within clearly specified vocabularies and grammatical structures, and the structures for sociological work are called theories. Any set of findings, then, only has meaning within the theory which is used to surround it.

We are concerned with three approaches: Statistical, Astrological, and Social Psychological. Statistically, in our research noted earlier (Cheatwood and Halstead) we had twelve birth signs, twelve months, four seasons, four elements, and four occupations involved. Correlating only two variables at a time we could have produced over 1,000 unique chi squares, which means we could have expected approximately 50 significant at the .05 level, ten at the .01 level, and even one at the .001 level. The only thing which would allow us to determine if these mean anything beyond the fact that randomization and probability do work is our ability to analyze the patterns of relationships visible from these significant results.

Only by analyzing the analysis can a scholar reach any worthwhile conclusions in season of birth studies, and only in the absence of significant patterns can we assume a set of statistically significant findings may, in fact, be random. From our other models, astrologically we would expect significance to appear comparing birth signs, birth elements, or other astrological factors to a dependent variable. From the perspective of the social psychological theories, we would expect the same sort of correlations by month, something which would be almost indistinguishable from correlations to birth signs given the overlap of the categories.

Two simple programs exist to test the predictive or explanatory ability of the two models—astrology and social psychology—and both have been attempted in limited cases (Cheatwood & Halstead; Torrey et. al.; Tyson). The first method to discriminate between models would be to analyze data on similar occupations or characteristics for the Southern and the Northern hemisphere. If the astrological argument is more accurate, the pattern of results should be the same for both, since the heavenly influences would be the same in both hemispheres. If the season of birth argument is correct, however, we would expect the correlations to reverse, since the season effects would be inverted in the opposite hemisphere. The second method for such a test would be to compare birth patterns for seasons to birth patterns for astrological elements. If the social psychological argument is correct, correlations to other variables should hold over seasons, since social patterns remain relatively stable by season. Astrological elements, on the other hand, are

represented in every fourth sign, so that fire element signs, for example, are Aires, Leo, and Saggitarus, characteristically the months of April, August, and December, Analysis supporting either the season or element correlation would imply support for the corresponding theory. Any particular attempt at empirical validation, however, is beyond the scope of this manuscript and, more importantly, still does not begin to offer a firm understanding upon which to build the theories necessary. The best we can do now is merely to suggest the theoretical possibilities inherent in both models.

*Seasons of Birth and Social Psychology*

The first model which could offer coherence to any findings of season of birth is derived from the foundations of sociology and psychology, yet is little more than conjecture at present because of the inadequacy of these disciplines in regard to theoretical models adequate to deal with phenomena on their periphery.

Specifically, from the time of conception to the first birthday, the human organism will undergo more physical and personal growth, development, and change than it will ever again encounter in its life span. From two separate single cells it will become a recognizable human being capable of communication, and this process will cover no more than 21 months—only twelve of which will be spent outside of the womb. It is useless to go into details of the development here, for the mechanics of the effects of season upon particular stages of development are so largely un-theorized that we cannot discuss them in detail. The research on physical disease and mental conditions has begun to suggest the future of pre-natal research and analysis, and H. W. Wendt has addressed the issue of post natal effects directly.

> Evidently later habits of testing and verifying the environment along with other "entropy coping" behaviors . . . are influenced around the time of first sitting up and responding to environmental constance, as in a Piagetian sense. More importantly, some "season of birth" correlations thus are clearly explained as lag artifacts (245).

Between the point of conception and the date of birth, every organ and system in the human being will develop. Between the point of delivery and the first birthday the groundwork will be laid for every major social activity in which an individual will engage in his or her life. The individual will learn to distinguish self from other, learn to distinguish among others, learn to make individual emotional responses, learn positive and negative self discriminations, learn to make emotional responses toward others, learn to elicit emotional responses from others,

learn to communicate physically with others, learn to crawl and possibly walk, and most amazingly of all, will learn the fundamentals of the most complex system human beings employ—language. These learning experiences occur in limited and distinct time periods, and the difference in interactional patterns prevelant during the season in which these experiences are learned will affect that education.

In a very real sense all social phenomena show seasonal variation since the very nature of social interaction changes with the seasons (cf. Kevan; Rubin). Marriages, births, deaths, retail sales, murders, and traffic accidents all display seasonal curves and demonstrate the fact that we interact in different ways during the summer months compared to the winter. For a specific developmental example, most babies learn to smile at about two months, and will learn to respond to other's responses to their acts—the first real social activity—at about four months. If these periods occur in the midst of winter, when outside interactions are at their lowest (ignoring Christmas) and the bulk of activity centers around the home or family, it will be a significantly different social environment for their appearance and evolution than were these periods of development to occur in late spring or summer, when people begin to expand their interactions and strangers become a normal part of the child's interactional experience.

In short, during the first 12 months of life social psychological growth and learning take place at a faster rate than will ever occur again. During these 12 months throughout most of Europe and the United States there will be recognizable seasonal changes, and these changes will have observed and documented effects upon social activity. Finally, these effects will in turn affect the development of personality within the child. Thus, season of birth will reflect the process of social activity from courtship through marriage, conception, and development, and thus will manifest itself, however faintly, in the personal capabilities of the children born in each season.

This may be interesting, but at present is little more than informed speculation. What is lacking is not a content matter subject to test, nor conditions applicable to such testing. Rather, we are seriously deficient in three respects. First, we lack a continuing tradition of careful analysis of data on time of birth and subsequent events. We have noted some of the material available, but there is too little replication or expansion of prior research. Second, and related to the first problem, we have no valid theoretical base from which to analyze the relationships between time of birth and interactional, economic, and physical factors in the first year of life. And finally, we are lacking the open-mindedness to allow for such developments. Until we will accept the possibility of such relationships, ignoring the fact of their origin if necessary, we will not

allow ourselves to ask the questions which might provide us with some valuable answers.

*Astrology*

Astrology is also a technique for understanding and a frame of reference for creating order out of chaos. The astrologer Dane Rudhyar writes that astrology is "the result of man's attempt to understand the apparent confusion and chaos of his life-experiences by referring them to the ordered patterns of cyclic activity which he discovers in the sky (8)." In this sense, astrology is similar to science. Attempting to provide the *basis* for this understanding, however, can and does pose problems. There appear to be at least two rationales that one can find embedded in the writings of modern-day astrologers and their defenders. There is, first of all, the idea that because astrology is ancient and because it has survived it is valid. This tends to be an implicit rather than an explicit idea among most "respectable" astrologers. One is likely to find, for example, a rejection of science as a valid measure of the adequacy of astrology rather than an outright acceptance of "supernatural" forces or an appeal to historical referents.

> Astrology is primarily a method for the interpretation . . . of the relationship between causally unrelated sets of phenomena . . . astrology "interprets" the observable concurrence between celestial phenomena and more or less definite changes in the lives of individuals or groups, but it is not concerned with the scientific study of the cause of such a concurrence, except on a purely philosophical or metaphysical basis (Rudhyar: 11).

The second rationale is scientifically based in the sense that one can search for information produced by "legitimate" scientists to support the validity of astrological procedures. A good summary of this approach can be found in Lyall Watson (5-76). Watson discusses the effects of the moon, sunspots, cosmic rays and the like on various aspects of human behavior. This leads him to conclude that "there are some mystical things about astrology, but there is nothing supernatural about the way it works (75)." Or as another writer on the same topic has concluded, "If the moon can affect us, then why not the other planets? (Wilson: 251)"

The problem for astrology is only partly in its origins in the occult. There is also its application of interpretation. This latter problem appears constantly in writings on astrology. Witness the following comments:

> Astrology does not deal with the determination of celestial phenomena, but with their interpretation in terms of human character and behavior (Rudhyar: 15).

> The essence of astrology is "not a complicated mathematical system or a system of beliefs, but a knack, like water-divining, of seeing the connections between character and planetary influences" (Wilson: 251).
>
> The real division between the establishments of science and astrology comes not when astrologers point to changes in the cosmos but when they claim to know exactly what these changes mean (Watson: 64).

Thus, even if one accepts the scientific evidence suggesting that celestial events have influences on human behavior, one is still in the position of determining which interpretation of a particular event is correct. Most astrologers are careful to point out that astrology is not intended to be deterministic. In other words, it is designed to be interpretive.

> Astrology . . . has no concern whatsoever with whether a conjunction of planets *causes* some things to happen to a person or a nation; it only *indicates* the possibility or probability of a certain type of events occurring in a certain place at a certain time (Rudhyar: 11, Emphasis in the original).

In conclusion, there appears to be little question that certain events in our solar system are related to some human behavior. Astrologers act as interpreters of the meaning of these events. This interpretation varies somewhat from astrologer to astrologer. It is this variance in interpretation and its foundation that the scientifically oriented critic seems to question. And yet, astrology appears to be able to accurately predict more often than it should. There is, as yet, no consistent, coherent explanation of why this should be the case.

## CONCLUSION

It would be unfortunate if the relationship of season of birth to subsequent life events were to be discounted with the belief that even if there was some correlation, it would make little difference and is scarcely worth the time of scholars to investigate. One concrete example must suffice to suggest the pragmatic payoff of such study. If we assume that the findings of Knobloch and Pasamanick on mental deficiency in Ohio are accurate, the money expended by a state to establish and maintain a program which would foster an increase in the intake of protein among expectant mothers during the hot summer months would have the impact within a decade of reducing the population of mentally deficient children. Such a reduction would affect the organization and financing of juvenile services, services for the mentally deficient, and perhaps even the juvenile services within the criminal justice system.

Yet such a suggestion would never have been made without an intellectual curiosity on the part of two researchers about an unexpected correlation of season of birth within their data.

The most important conclusion, however, relates to the implications for theory. We are well aware that human behaviors display seasonal variations. It is only logical to expect these seasonal variations in interactional patterns to affect family and friend interactions and thus, directly and indirectly, socialization patterns of the young children. The effect would be undeniably small, but recall the radical changes that occur in the first year of a child's life, and the relatively short time periods in which major social awarenesses appear in this first year. The season in which these changes come about will reflect family interactions, visitation patterns, and general socialization patterns of that season, and will produce differences in the resultant personality type of persons born at different times of the year. Such effects may be irrelevant in any particular case, but the statistical evidence indicates that the effect on large populations may be observable and verifiable. Certainly the empirical evidence indicates such a possibility. This possibility of seasonal effects on child rearing practices and resultant post natal social psychological effects on personality deserves a more objective and thorough analysis than it has been offered in sociology.

Even the possibility that there are influences from the solar system that affect the individual from the very instant of conception through his or her entire life deserves more than an off-hand dismissal based on common sense and educated intolerance for the improbable. As Einstein said, common sense is nothing but a set of prejudices laid down before the age of fifteen. If we are technicians, then our job is to do what we have been told in the ways we have been told to do it. If we are scholars, then our whole reason for being is to consider ideas—no matter how new, no matter how old, and no matter how bizarre at first glance. A serious scientific curiosity and an informed imagination might produce untold benefits in its application from the periphery of acceptable social science.

## NOTES

[1]Huntington's work has been criticized for the lack of statistical sophistication and for his geographic and climatic determinism. His research remains, however, a first attempt at a thorough objective look at the phenomena.

[2]The use of this particular quotation is borrowed from Barth and Bennett, p. 235.

[3]Few, if any, of the real professionals in that field would make such a claim.

[4]The use of "short sword" refers not the intellectual capacity of sociologists. It refers, rather, to the type of weapon Alexander carried.

## REFERENCES


Barth, James R. and James T. Bennett. 1974. "Astrology and Modern Science Revisited." Leonardo, 7: 235-237.

Berger, Peter and Thomas Luckman. 1966. The Social Construction of Reality. Garden City: Doubleday Anchor.

Bok, Bart J. 175. "A Critical Look at Astrology," The Humanist, Sept./Oct.: 6-9.

Bok, Bart J. and M. W. Mayall. 1941. "Scientists Look at Astrology," Scientific Monthly, 52: 223-244.

Cheatwood, Derral and Mike Halstead. 1981. "Success, Sun Signs, and Season of Birth," unpublished manuscript.

Clark, Vernon. 1960. "An Investigation of the Validity and Reliability of the Astrological Technique," In Search, 2#4: 45-69.

Cole, LaMont C. 1957. "Biological Clock in the Unicorn," Science, 125: 874-876.

Cooper, H. J. 1973. "Occupation and Season of Birth," The Journal of Social Psychology, 89: 109-114.

Cooper, H. J. and A. G. Smithers. 1975. "Birth Patterns Among American Army Officers," The Journal of Social Psychology, 97: 61-66.

Farnsworth, P. 1937. "Aesthetic Behavior and Astrology," Character and Personality, 6: 335-340.

Friedman, Milton. 1953. Essays on Positive Economics. Chicago: University of Chicago Press.

Gauquelin, Michel. 1969. The Cosmic Clocks. Chicago: Henry Regenry.

— 1969. The Scientific Basis of Astrology. New York: Stern and Day.

— 1980. The Spheres of Desiny. London: J. M. Dent and Sons.

Huntington, Ellsworth. 1938. Season of Birth, Its Relation to Human Abilities. New York: John Wiley.

Jerome, Lawrence E. 1973. "Astrology and Modern Science: A Critical Analysis," Leonardo, #6: 121-130.

— 1975. "Astrology: Magic or Science," The Humanist, Sept./Oct.: 10-16.

Kevan, Simon M. 1979. "Season of Life-Season of Death." Social Science and Medicine, 13D: 227-232.

Knobloch, Hilda and Benjamin Pasamanick. 1958. "Seasonal Variation in the Births of the Mentally Deficient." American Journal of Public Health, 48: 1201-1208.

Mayo, J. O. White and H. Eysenck. 1978. "An Empirical Study of the Relationship between Astrological Factors and Personality." The Journal of Social Psychology. #105. pp. 229-236.

Pellegrini, Robert J. 1973. "The Astorlogical 'Theory' of Personality: An Unbiased Test by a Biased Observer," Journal of Psychology, 85: 21-28.

Rudhyar, Dane. 1968. The Practice of Astrology. Baltimore: Penguin.

Rubin, Zick. 1979. "Seasonal Rhythms in Behavior." Psychology Today, 13#7: 12-16.

Silverman, Bernie I. 1971. "Studies of Astrology," Journal of Psychology, 77: 141-149.

Silverman, Bernie I. and Marvin Whitner. 1974. "Astrological Indicators of Personality," Journal of Psychology, 87: 89-95.

Smithers, A. G. and H. J. Cooper. 1978. "Personality and Season of Birth," The Journal of Social Psychology, 105: 237-241.

Torrey, E. Fuller, Barbara Torrey and Michael R. Peterson. 1977. "Seasonality of Schizophrenic Births in the United States," Archives of General Psychiatry. 34: 1065-1070.

Truzzi, Marcello 1972. "The Occult Revival as Popular Culture: Some Random Observations on the Old and Nouveau Witch," Sociologial Quarterly; 13: 16-36.

— 1975. "Astrology as Popular Culture," Journal of Popular Culture, 8: 906-911.

— 1978. "Scientific Studies in Classical Astrology," Zetetic Scholar, #2: 79-87.

Tyson, G. A. 1977. "Atrology or Season of Birth: A 'Split-Sphere' Test," Journal of Psychology, 95: 285-287.

Watson, Lyall. 1973. Supernature. Garden City: Doubleday Anchor.

Wendt, H. W. 1978. "Season of Birth, Introversion, and Astrology: A Chronobiological Alternative." The Journal of Social Psychology, 105: 243-247.

Wilson, Colin. 1971. The Occult. New York: Random House.

# BIOLOGICAL CYCLES AND SOCIO-RHYTHMS

By Joe W. Floyd, Jr.*

## INTRODUCTION

Like a racehorse or a plowhorse, most sociologists as well as most scientists view their world with vision partially obscured by blinders. Without the distractions of the periphery, the racehorse or plowhorse concentrates effort directly forward. Similarly, without the distractions of competing paradigms, extraneous variables, and alternative explanations, the sociologist directs his or her attention to the publication or report.

As young, potential scientists our idealism gives way, if gradually, to the more mature perspective that reality contains a quantity of variables sufficient to boggle the best of minds. Our graduate school socialization also provides us with a glimmer of the professional reward structure, and phrases like "quick and dirty" begin to infiltrate first our vocabulary, and eventually and inevitably our consciousness. And so we begin to construct our models of reality. These models, a sort of synthesis of our professional socialization and experiences, continuously remind us which variables are important in our explanation of the empirical world, and by implication, which variables may be safely ignored.

The limited investigations which result from our specialized science-of-blinders have important consequences in terms of our understanding and explanation of the empirical worlds forming the bases of our inquiry. Relationships between or among my sacred variables and your sacred variables will not easily be perceived as I can safely ignore yours and you can safely ignore mine. If such selective perception is likely to occur in a given discipline such as sociology, the likelihood of explanations combining variables from different disciplines is negligible, even when disciplines attempting to explain a common phenomenon such as human behavior are being considered.

The purpose of this paper is to examine one of my sacred variabls, but to examine it in the context of several disciplines. The result of this

*The author wishes to express his gratitude to the National Endowment of the Humanities, to Professor A. Tiryakian, and to the eleven partcipants in the NEH Summer Seminar held at Duke University in 1980, for their stimulating ideas, intellectual support, and colleagueality. Without the experience of that seminar, this paper would not have been written. In addition the author expresses his gratitude to Professor Mark J. LaFountain, the editor of this volume and a Seminar Colleage for his patience and encouragement, and Jim Stone, Susie Colbrese, and Sue Kutzler for their assistance and support.

examination will demonstrate the utility of interdisciplinary inquiry, will point to the existence and utility of interdisciplinary paradigms, and will demonstrate some serious inadequacies in our science-of-blinders approach to the acquisition and categorization of knowledge.

## My Sacred Variable: Time

In the history of Western thought there are two major views or perspectives on time. One view assumes time to be a real or tangible entity or force, something which can be observed, studied and reflected upon. This view, the Time as a Single Entity Perspective (TSEP), found its first spokesperson in Newton (1729), and continues to find support from scholars such as J. T. Fraser (1965, 1972, 1975), the founder of the International Society for the Study of Time.

The second view, the Multiplicity of Times Perspective (MTP) regards time to be a function of, reflection of, measurement of, or reification of motion or process. The difference between motion and process is essentially a difference in emphasis of observation. Motion implies a physical description of the movement of something during the passage of events. Process implies a segment of the passage of events perceived by an observer as having a beginning, an end, and often, discernable stages. The MTP, professed and supported by such scholars as Einstein (1956), Piaget (1954), 1970), Ornstein (1972), Haber (1966), and Bergson (1965, 1971), assumes not one time but many times, and has the capability of distinguishing differences in times through the application of such dimensions as continuousness, divisibility into smallest meaningful units, linearity, density, and rate of passage.

When explanations which involve more than one frame of reference are necessary, the MTP provides greater flexibility, utility, and power than does the TSEP. As Ornstein (1972:79) suggests:

> . . . the simple confusion of one construction of time with another has caused great difficulties for professional researchers in many disciplines. This confusion stems from the underlying implicit belief that a "real" linear time exists somewhere outside of man.

The actual assumptions of the MTP are best summarized by Haber (1966:322):

> When used as an entity or force in the universe, time may very well prove to be a reified concept. Moving from discipline to discipline, the conviction grows that the actual use of the idea of time is to express a function or measurement of the processes under study, even though the writer may believe in the existence

of the entity of time.

The MTP allows and facilitates the comparisons of different types of motion or process through a comparison of the dimensions of the different types of times which emerge from motions or processes. These comparisons often begin with an assessment of the similarities and differences of different types of motion or process or different segments or stages of process. An emphasis on similarity of segments of process or motion may highlight the permanence of events, while an emphasis on differences may highlight change.

## A Special Aspect of Time: Cycles

Every moment, or every perceivable unit of the passage of events, has elements of both permanence and change. Our system for the reckoning of time provides a simple example of this assertion: minutes, hours, days, and months repeat (permanence), but our labeling of years makes each year unique (change), and the week is a perplexing anomaly. A mode for the organization of the passage of events which accommodates both permanence and change is the cycle, which allows the regular repitition of change to be viewed as permanence. I am not so pretentious as to propose that all change can be modeled by the cycle, as the secular aspects of the passage of events are more appropriately modeled by entropy and negentropy and thus remain beyond the scope of the cycle paradigm and this paper. Yet it should be noted that when a segment of the passage of events is isolated for study, i.e. when time is sampled, the length or duration of the segment may either mask or highlight the occurrence of cycles, especially cycles with periods longer than the isolated segment. As a result of the secular nature of the human life span, the short term professional reward structure, and advances in technology, cycles with relatively short periods (nano-seconds to say decades) have received more attention than cycles with longer periods (say a century).

The focus of this paper is the mode for the rational organization of time, motion, process or the passage of events, known as the cycle. A cycle refers to a particular kind of change in the values of any variable; a change in which the maximum and minimum values repeat in a predictable fashion, where predictable usually means by the use of the referrent of clock time although other types of time could be utilized for prediction. The duration or length of the interval from maximum to maximum or minimum to minimum is known as the period of the cycle. Notice that the form of the function which best models the change has not been described other than to say that it was a periodically repeating function.[1]

The relevance of the awareness of predictable repetition in the

values of variables to explanation and understanding should not be underestimated. When two variables are not independent, and when the values of the variables change in a cyclically repeating manner, the type and degree of the relationships is affected tremendously by the cyclical interaction of the variables. If one variable is at its maximum at the same point in time as the other variable (in phase), the relationship between the variables as well as their combined effect on other variables is apt to be a great deal different than if one variable reaches it maximum at the same point in time as the other variable reaches its minimum (180 degrees out of phase), and there are numerous other possibilities of interaction, such as 90 degrees out of phase, 270 degrees out of phase, etc.

In their investigation of biological cycles, chronobiologists have observed variables within the human body which have values that are cyclical and which have respective periods that span seven orders of magnitude. For a number of reasons, cycles with periods of approximately 24 hours have received more attention than cycles with other periods, and over 100 variables with 24 hour cycles have been observed within the human body. Cycles with periods of approximately 24 hours are referred to as circadian, from the Latin, *circa* meaning about, and dian from *dies,* meaning day. The degree of attention placed on the circadian cycle is reflected in the labels ultradian for cycles with periods shorter than a day and infradian for cycles with periods longer than a day.

Biology is not the only discipline which has included the concept of cycles in its explanation of the empirical world. Musicians, physicists, economists, and meteorologists, among many other investigators in divergent disciplines, have found it essential to include the cyclical mode of organization in their analysis of the passing of events or the interpretation of process. Yet few sociologists, with the notable exceptions of Sorokin and Merton (1937) Waller (1951), and Hawley (1950), have utilized the concept of cycles in their exploration of the social world.

The model of reality represented by cycles differs considerably from the models of reality most frequently employed in sociological analysis. Sociological theory consists of ordered sets of propositions, where the ordering principle is deductive or inductive. Propositions are the formal statement of the relationships between or among concepts. The typical proposition separates the dependent concepts (effects) from the independent concepts (causes), and when merely associational statements of relationships are utilized the model is not thought to be complete. When these propositions are operationalized, measurement instruments developed and quantitative data gathered, the resulting mathematical model usually takes the form of an equation which sets the dependent variable equal to some arrangement of independent

variables which are combined in a manner consistent with mathematical rules. Typically, the least squares tradition is applied to assess the amount of variation in the dependent variable which is explained by variation in the independent variable(s).

The least squares tradition is bounded by the random variation model and the idiographic model. The random variation model assumes that all deviations from the expected value, e.g., a mean, a regression line, or the ratio of explained to unexplained variation, are the result of random forces or chance and can therefore be ignored. The idiographic model, on the other hand, assumes that all observations are the result of unique forces and so each observation must be treated separately. Between these polar models are an infinite number of models less restricted than the idiographic model and more restricted than the random variation model. Such models are statistically evaluated by techniques such as analysis of variance, bivariate and multivarite correlation, etc. Unfortunately, most of these models assume a linear relationship, and somewhat less frequently curvilinear and other higher order models are tested. Sociology seldom makes use of models employing periodically repeating functions.

To better illustrate the power of periodically repeating models, it is useful to examine some of the empirical events which can be explained or modeled in terms of the interaction of cycles. A musical note may be represented as a series of repeating functions. The note A immediately above middle C has a fundamental frequency which may be represented by a sine wave with a frequency of 440 Hz. (or cycles) per second. Depending on the nature of the medium which amplifies and transmits the note, as well as the manner in which the note is produced, the note also consists of a spectrum of harmonics, i.e., additional cycles with frequencies which are an even multiple of the fundamental.

One of the more intriguing notions of the psychology of music is the explanation of how different harmonic spectrums are perceived. When two notes are played simultaneously, interaction occurs. This interaction is perceived quite differently depending on whether one note's harmonic spectrum on the basilar membrane overlaps the other note's harmonic spectrum in alignment (consonance) or is out of phase by more than a "critical bandwith" (dissonance). (Rider, 1981)

The transmission of intelligence by means of radio waves is also based heavily on the concept of the interaction of cycles. Simplistically, the principle of AM radio transmission involves the superimposing of one cycle form, the intelligence, on another cycle form, the carrier, a process called modulation, which can be radiated through the atmosphere. An AM radio receiver first must isolate the frequency of the carrier and then isolate and amplify the intelligence. Both tasks are accomplished

by the introduction of a third frequency, called the beat frequency which interacts with the other cycles and produces a number of harmonics. The appropriate harmonic is then amplified and eventually made to vibrate a speaker to produce the disturbances of the air which we perceive as sound.

The oscillator, a device, organ, or system capable of producing a repeating variation in the values of some measureable variable, is one of the most important concepts in the cycle paradigm. In the 1600's a remarkable characteristic of oscillators was observed. (Leonard, 1978) When two oscillators producing cyclical variations of approximately the same period are placed in close physical proximity, phase-locking or synchronization occurs, that is, the oscillators beat in rhythm. Examples of phase-locking of oscillators are widely available. Tuning a radio or television is accomplished by changing the frequency of an internal oscillator which causes a change in the harmonics produced in the radio or television. When the signal is at its maxmum strength, the desired harmonic has been attained. The tuning procedure does not have to be totally precise as phase-locking will occur when the signals are approximately of the same frequency (frequency is the reciprocal of period), thus the locking-in phenomena one experiences when tuning a radio or television. Other examples of phase-locking include the adjustment of the horizontal and vertical hold on a television, two pendulum clocks mounted on the same wall, the introduction of living tissue into an organism, and with less documentation, the menstrual periods of women who live together.

Phase-locking or synchronization has proved to be a tremendously important concept to the chronobiologists concerned with biological cycles. Contemporary biological theory distinguishes between endogenous and exogenous biological cycles. Endogenous cycles are cycles which cannot be correlated with cyclical variations in the environment of an organism, and therefore are attributed to some internal oscillator, although a controversy exists as to the mechanism which creates and regulates the frequency of internal oscillators. Exogenous biological cycles can be demonstrated to have periods which correlate with the periods of cyclical environmental variables.

The phase-locking of internal biological cycles with cyclical environmental variables is a relationship which has been carefully examined. The external variable which causes a modification of the period of the cycle of an internal variable is known as an entrainment stimulus, and the process of the phase-locking of an internal cyclical variable to the period of an external cyclical variable is known as entrainment. Investigations of entrainment and the types and strengths of entrainment stimuli have resulted in knowledge with numerous applications. Chickens

are now exposed to artificial lighting during their sleep cycle and lay more eggs, the mechanisms of navigation of birds and bees are now understandable, the growth of plants can be accelerated by artifically controlling the light-dark (diurnal) cycle, and the uncomfortable side effects produced by jet lag or flight diasrhythmia can be minimized.

Before we continue the discussion of the implications and importance of entrainment, a description of the nature, power, and pervasiveness of circadian biological cycles is in order. Luce (1970) reports that the same dosage of amphetamines will be lethal for 6% of a population of rats when administered at the end of an activity period, but will kill 77.6% of a population, when administered at the middle of an activity period. Haus et. al. (1959) found that a particular quantity of vodka would prove lethal to 60% of a population of rats when administered at awakening while the same dose would only prove lethal to 12% when administered before retiring. Mathews et. al. (1964) found that a particular dosage of an anesthetic would have 5% mortality rate at one time during the circadian cycle and would result in the death of 76% of the population when administered at another time. Scheving (1968) found that a standard dose of pentobarbital would produce 50 minutes of sedation in rats at one time during the circadian cycle and would produce 90 minutes of sedation at another time.

Obviously, studies of circadian rhythms in human subjects have been somewhat different, as studies which produce mortality rates in human subjects are usually discouraged. Many processes in the human body, such as respiration, blood pressure, pulse, the production of numerous organic substances such as hormones, adrenalin, ATP, and brain amines such as serotonin and dopamine, the elimination of substances, especially urinary electrolytes, brain waves, the utilization of different food types, and many other processes have been monitored, either continuously or at least very frequently on a 24 hour basis. The results of these studies provide a descriptive baseline of the circadian nature of the human body.

Another area of the investigation of circadian rhythms involves the effects of stimuli on the human circadian system, stimuli such as sensory deprivation, sleep deprivation, numerous types of stress, shift work, as well as various types of chemicals and drugs. Other studies have examined the effects of disease at different times in the circadian rhythm as well as the interaction of circadian rhythms and disease. Luce (1970) reports that a circadian rhythm in the flow of blood in the calves of the legs is observable in people who have peripheral arterial disease, but not in people without the disease. Bartter, Delea, and Halberg (1962) found that patients with certain endocrine illnesses such as aldosteronism manifested a rhythmic variation in urinary aldosterone which was out of

phase with the rhythms of people without the disease. A most provocative finding is that while normal cells show a circadian rhythm in mitosis, cancer cells do not; rather cancer cells reproduce in 8 hour cycles in some cases and 20 hour cycles in others.

Not all studies of the human circadian system have been limited to physiological variables. The phrase, behavioral chromatography, refers to the analysis of the circadian nature of human behavior. Conroy and Mills (1967) report circadian variations in efficiency and performance in tasks such as multiplication, solving syllogisms, and reaction time. Wilkinson and Blake (1968) and Colquhoun (1967) report circadian variation in vigilance as measured by sensitivity to sensory input. Bjerner et. al. (1955) reported significantly more errors by meter readers at night than during the day. Other studies have indicated circadian variation in industrial accidents, the amount of time necessary for switchboard operators to complete calls, death, perception of variations in color hue, severity of symptoms of mental illness and depression, emotions, and numerous other forms of human behavior.

A detailed analysis of these findings is beyond the scope of this paper, but one of the major findings concern the relationship between human behavior and biological circadian rhythms. One such finding is that people who describe themselves to be morning people have a circadian variation in temperature which peaks somewhat earlier than people who describe themselves to be evening people. In addition, there is a significant relationship between morningness and introversion and eveningness and extroversion. Different behavioral forms, such as multiplication speed and accuracy versus distinction of color hue, are correlated differently with basic indices of metabolism. Moreover, most behavioral forms correlate highly with metabolism for part of a 24 hour period, but are not highly correlated during other parts. Explanations for the lack of correlation between variations in the forms of different types of behavior and circadian metabolic variation include the possibility of a secular component such as fatigue, or the correlation of the behavior with other entrainment stimuli different from the entrainment stimuli which effect biological functioning.

From the point of view represented here, some of the most exciting implications of the human circadian system have resulted from the work undertaken at the Max Planck Institute in Germany under the direction of Juergen Aschoff (and most recently summarized by Wever, 1979). Two underground apartments have been constructed at the Max Planck Institute. The environment of both apartments can be controlled to eliminate cyclical changes in the values of environmental variables which have been demonstrated to be strong entrainment stimuli, variables such as the light-dark cycle, ambient temperature and humidity. In

addition, one apartment is completely shielded from electromagnetic radiation, another entrainment stimuli, and this apartment also has the capabilities of introducing electromagnetic radiation of nearly any frequency into the environment.

Within the context of this laboratory, numerous experiments have been undertaken. Experimental designs have manipulated such variables as the number of subjects placed in temporal isolation, and the presence as well as absence of periods of known entrainment stimuli. The general results of these experiments indicate that when human beings are completely isolated from external time cues and the influence of entrainment stimuli, the pattern of their sleep-awake cycle first varies considerably, almost chaotically, and then settles into a cycle with a mean period of 25.6 hours. Although the sleep-awake cycle is highly correlated with nearly all cricadian biological rhythms, most of the experiments included continuous or frequent monitoring of biological variables such as the presence of various substances in excretia. As expected, the diurnal or light-dark variation and variations in ambient temperature were found to be strong entrainment stimuli.

However, evidence for the strongest of all entrainment stimuli was obtained serendipitously. In one isolation experiment, in which all environmental variables were held at a constant, the subjects were observed manifesting a 24-hour awake-sleep cycle, an unexpected and statistically significant event. A careful examination of the experimental conditions revealed an unintended 24-hour external cycle. A graduate student apparently not fully acquainted with the research design was delivering mail to subjects at the same time each external day, thereby introducing a variable with a 24 hour cycle, a social variable. Subsequent manipulation of all entrainment stimuli being controlled demonstrated that social variables are more powerful than any other type of variable as entrainment stimuli of biological cycles.

Powerful entrainment stimuli are referred to as Zeitgebers, a German word which literally translates as "time-givers," in honor of Juergen Aschoff. The finding that social variables are not simply a part of the entrainment of biological rhythms, but rather are the strongest of Zeitgebers for biological cycles, has profound implications for any investigation of biological cycles, the interaction of biological variables and social variables, or the investigation of the temporal structure of the social world. While the experiments at the Max Planck Institute indicate that the free-running period of the awake-sleep cycle average 25.6 hours in humans, the social convention of a 24 hour day is close enough to 25.6 hours for entrainment to occur.

The 24 hour day is not the only social Zeitgeber to be found in our social world. To this point there has been little mention of cycles with

periods which are different than 24 hours, i.e., ultradian and infradian cycles. Obviously the diurnal and ambient temperature natural cycles are influenced by yearly or annual cycles. Human beings, through technological advances have been able to control the variation of the light-dark and temperature cycles, at least within controlled areas. It should be noted that the interaction of cycles of different frequencies has been discussed above in terms of music and radio theory, and that the concept of harmonics has been developed to mathematically model such interaction.

Perhaps the most important social Zeitgeber, aside from the 24 hour day, is the standard work week, which will be defined as working 8 hours per day between the hours of 7 AM and 6 PM from Monday to Friday. For most people the actual form of the work week is 4 hours on, then 1 hour off, then four hours on, then 15 hours off. This pattern repeats 4 times, then follows 63 hours off before the cycle begins again.

While it might appear that weekends would be free for the maintenance of the family, other relationships, and the maintenance of lifestyle, all too frequently weekends become absorbed in chores, tasks, and errands which require more time than is available during the week. The standard work week is the primary scheduler in contemporary American society, the invariant temporal variable around which all other activities are scheduled. Moreover, all people in American society are affected by the work week since so many facilities and services are clearly scheduled by the work week. A vast majority of Americans are more directly affected by either working within the constraints of the standard work week or by living within a family or other living unit in which at least one member works within the constraints of the standard work week.

While this has significant implications for the people who participate in the standard work week, it also has significant implications for those people who do not but who have a schedule directly reflected or affected by it. Perhaps the best example is the leisure industry, which nearly by definition must be 180 degrees out of phase with the standard work week, that is people employed in many aspects of the leisure industry must work while we play, and therefore must work at a different time than those people on the standard work week.

Our complex, differentiated society requires that some sectors must be maintained on a 24-hour or continuous basis. Therefore, emergency services, protective services, communications, and transportation are maintained continuously. In addition, numerous manufacturing and refining processes must be maintained on a continuous basis or at least are much more cost efficient if they are maintained on a continuous basis. It is difficult for a number of facilities such as buildings and streets to be maintained and cleaned during their time of primary use. The

result of these factors and others is that numerous people work at times other than the 8 hour per day, 40 hour per week, standard work week.

It is a safe assumption, I should think, that the life of a non-standard work week worker is qualitatively different than the life of a standard work week worker. Many of the performing arts in this culture, be they music, theatre, or even movies are scheduled so as to be available to the majority, that is the standard work week workers and their significant others. This makes these events difficult for the non-standard work week worker to attend. Moreover, many of the facilities utilized by all people, regardless of direct or indirect participation in the work week are scheduled by the work week. While the direct effects of this schedule are fairly obvious, indirect effects such as noise level and peer pressure also exist, factors which may explain Floyd's (1977) finding that people who work at night usually sleep twice in a 24 hour period.

The rhythmic nature of our social structure has only recently become the subject of sociological analysis. Murray Melbin (1978) regards the night as a frontier, as he substitutes the dimension of time for the dimension of space which was being settled as our culture pushed westward in the 19th century, but Melbin barely noticed that circadian rhythms are often desynchronized when out of phase Zeitgebers compete. Dantzig and Saaty (1973) suggest that the future of urban areas may be strongly affected by temporal compartmentalization, i.e. different sections of the city may be operational at different times and some at all times.

While there are sociologists attempting to come to grips with the "sociology of time" (Zerubavel, 1976) it would appear that others do not hear. For most sociologists, time is after all the invariant, one-dimensional variable measured by the clock. Moreover, the sociologists who are paying attention to the utility of the MTP are not seemingly able to cross disciplines to notice the work of the chronobiologists, while chronobiologists such as Wever (1979) who reported the discovery of the social Zeitgeber as the strongest of all Zeitgebers failed to pursue the possible mechanisms and variations involved in socio-rhythms.

## Implications and Conclusions

In the context of this short paper, a detailed discussion of the strategies of inquiry implied by a cyclical view of human behavior, biologically, psychologically or socially, is impossible. Therefore, to conclude, I would simply like to suggest what I consider to be some of the most provocative areas for future research.

Stress has been defined as a non-specific response to stimuli. One obvious reason for a non-specific response is not knowing what the

stimuli are. It has been suggested in this paper that there are better and worse times during a circadian period to attempt different kinds of tasks. One common stimulus that leads to stress is frustration, and frustration is a common result of knowing or feeling that you are not doing something as well as you should or could. One possible solution would be to try doing that thing at a different time during the circadian cycle.

However, one difficulty in this strategy is the rather rigid cyclical nature of social structure. Our social Zeitgebers seem to bear little if any connection with our biological circadian cycles. It is common, therefore, for individuals to suffer from desynchronization, that is, the conflicting results of Zeitgebers which are out of phase with each other. We can point to social Zeitgebers which are out of phase with each other, and any synchronization between social Zeitgebers and biological Zeitgebers is seemingly purely coincidental. Allowed license for some speculation, I would suggest that many "psychological disorders" might well be traced to desynchronization.

There has been much written lately about the decline of the American family, or the pathology of the American family. If the question "which is more important, your family or your job/career?" were posed to individuals, some would say career, some family, but most would find the question disconcerting. Yet those who work have essentially defaulted their freedom of chosing. The work schedule, be it the standard work week or some other variant, has provided the answer already: one's job or career schedules nearly all other activities and demands, at least for standard work week workers, one's highest quality time.

Ironically, the work week also creates an environment which encourages either the traditional nuclear family, or a living arrangement which includes one person working the standard hour work week and one person who does not. It is the latter person who has the flexibility of schedule necessary to interface with facilities and services which operate on the basis of the standard hour week.

Perhaps more ironically, the most adaptable temporal condition for a single person involves working at a time out of phase with the 40 hour week. The single person then has the free time to interface with the facilities and services bounded by the standard hour week. However, such a schedule necessitates socializing with others who are not committed to the standard work week. It is possible that the correlation between the morning person and introversion and the evening person and extroversion represents a relationship which has a social basis. When a person feels more energy in the morning they may be more outgoing, yet this energy will be absorbed by their work. When a person feels more energy in the evening, the energy may well direct the individual to

seek out people with whom to socialize.

It is often noted that police officers, among other professionals, tend to resort primarily to intra-profession socializing. Explanations for this phenomenon usually involve the unique aspects of the experiences police officers share and the 24 hours per day continuous nature of police work. Perhaps the reason for such intra-professional socialization has more to do with work schedules than experiences and values.

In conclusion, much analysis of human behavior fails to take into account the cyclical nature of our bodies, our moods, our feelings, our abilities, and our social structure. Cycle theory is an important paradigm in many disciplines, a paradigm with formal rules. The formal rules in the cycle theory paradigm provide mathematical models for functions which represent repeating variation, and provide a basic model for the interaction of any and all functions which can be characterized as cyclically repeating, regardless of the length of the period, the form of the variation, or the level of measurement.

There are perhaps two reasons why the social and behavioral sciences have not utilized the cycle paradigm. First, cycle theory is not based on the cause and effect relationship which is so predominant in Western thought and science. Secondly, the empirical manifestations of the principles of cycle theory, such as harmonics, consonance, and dissonance are much more apparent in the areas of music, physics, and biology than they are in human behavior. Perhaps it is time to begin to speculate as to what kinds of empirical manifestations one would expect from harmony, consonance and dissonance between and among the cycles of life: the biological cycles, the psychological cycles, and the social cycles.

In addition to the cyclical variables discussed in this paper, many other forces which manifest cyclically repeating variation have been observed and documented. There may be reason to suppose that some of these forces such as those of the moon, the sun, the sunspots, the weather, and even cosmic radiation might have some effect on human behavior. There is also documentation for cyclical variation in behavior and physiological functioning with periods such as 90 minutes, 23 days, 28 days, and 33 days. Dewey and Mandino (1947) and Dewey and Dakin (1971) have summarized and documented the existence of cycles in many empirical phenomena, and these works provide, at the least, interesting reading.

Finally, any analysis of rhythms or cycles benefits a great deal from an interdisciplinary approach. Contemporary American scholarship provides little reward for interdisciplinary study. However, the recent controversy surrounding socio-biology (Wilson, 1975) or balanced biosocial theory (Baldwin and Baldwin, 1980) may provide the legitimated basis

for a pursual of the nature of social-biological explanations. If such a legitimation does occur, it would seem that a viable and powerful strategy for inquiry should focus on the nature of the interaction of the many types of cyclical variation found in the nature of so much within us and around us.

## NOTES

1. Sociologists and others have adopted a typology of levels of measurement. It is not difficult to view cycles in the same manner. Thus nominal scales are best modeled by a discrete (not continuous) step wave, the magnitude of which represents the relative frequency of each category. Ordinal scales may be represented by a continuous step wave. Interval scales are best represented by a continuously variable wave such as a sine wave or a cosine wave. Ratio scales are best represented by a continuously variable wave which never assumes a value below a non-arbitrarily fixed zero point. Therefore, a cycle can assume nearly any wave form, need not be continuous or if continuous, need not be continuously variable. A cycle need only correspond to the repition of the maximum to maximum or minimum to minimum condition as stated in the text.

## BIBLIOGRAPHY


Baldwin, John D. and Janice L. Baldwin. "Sociobiology or Balanced Bisocial Theory?," *Pacific Sociological Review*, 23: 3-27, 1980.

Bartter, F. C., C. S. Delea, and F. Halberg. "A Map of Blood and Urinary Changes Related to Circadian Variations in Adrenal Cortical Function in Normal Subjects," *Annals of the New York Academy of Sciences*, 98: 969-983, 1962.

Bergson, Henri. *Duration and Simultaniety with Reference to Einstein's Theory*, Indianapolis: Bobbs-Merril, 1965.

Bergson, Henri. *Time and Free Will*. New York: The MacMillan Company, 1971.

Bjerner, B. A. Holm, and A. Swenson. "Diurnal Variation in Mental Performance." *British Journal of Industrial Medicine*, 12: 103-110, 1955.

Colquohoun, W. P. "Biological Rhythms and Shift Work," *Spectrum*, December, 1967.

Conroy, R. T. A. and J. N. Mills. *Human Circadian Rhythms*, London: Churchhill, 1970.

Dantzig, George B. and Thomas L. Saaty. *Compact City: A Plan for a Liveable Urban Environment*, San Francisco: W. H. Freeman and Company, 1973.

Dewey, Edward R. and Edwin F. Dakin. *Cycles, The Science of Prediction*, New York: Henry Holt and Company, 1947.

Dewey, Edward R. and Og Mandino. *Cycles: The Mysterious Forces That Trigger Events*. New York: Hawthorne Books, Inc., 1971.

Einstein, Albert. *The Meaning of Relativity*, New Haven, Conn.: Princeton University Press, 1956.

Floyd, Joe W. *Toward a Theory of the Articulation of Personal Time Scheduling with Diverse Institutional Social Times*. Unpublished Ph.D. Dissertation, University of California, Riverside, 1977.

Fraser, J. T. *Voices of Time*. New York: Brazillier, 1966.

Fraser, J. T. (ed). *Proceedings of The International Society of the Study of Time*. New York: Verlag-Springs, 1972.

Fraser, J. T. (ed) *Proceedings of the Second Conference of the International Society for the Study of Time*, New York: Springer-Verlag, 1975.

Haber, F. C. "On the Unity of Time," *Science*, 155: 32, 1966.

Haus, E., E. M. Hanton, and F. Halberg. "24-hour Suceptibility Rhythm to Ethanol in Fully Fed, Starved, and Thirsted Mice and The Lighting Regimen," *Physiologist*, 2: 54, 1959.

Hawley, Amos Henry. *Human Ecology; A Theory of Community Structure*, New York: Ronald Press Company, 1950.

Leonard, George. *The Silent Pulse*, New York: Dutton, 1978.

Luce, Gay Gaer. *Biological Rhythms in Psychiatry and Medicine* U.S. Government Printing Office, DHEW Publication No (adm) 78-247, 1970 (1978).

Matthews, J.H., E. Marte, and F. Halberg. "A Circadian Susceptibility Resis-

tance Cycle to Flurothane in Made Bl Mice," *Canadian Anesthetists' Society Journal,* 11: 280-290, 1964.

Melbin, Murray. "Night as Frontier," *American Sociological Review,* 43: 3-22, 1978.

Newton, Sir Isaac. *Sir Isaac Newton's Mathematical Principles of Natural Philosophy and His System of The World,* Florian Cajori's Revision of the 1729 translation by Andrew Molte, Berkeley, University of California Press, 1947.

Ornstein, Robert E. *The Psychology of Consciousness,* San Francisco: W. H. Freeman and Company, 1972.

Piaget, Jean. *Construction of Reality in the Child,* New York, Basic Books, 1954.

Piaget, Jean. *Child's Conception of Time,* New York, Basic Books, 1970.

Rider, Mark. Personal Conversation, Billings, Montana, May, 1981.

Scheving, L. G., D. F. Vedral, and J. E. Paulen. "A Ciracdian Susceptibility Rhythm in Rats to Pentobarbital Sodium," *Anatomical Record,* 160: 741-750, 1968.

Sorokin, Pitrim and Robert K. Merton. "Social Time: A Methodological and Functional Analysis," *American Journal of Sociology,* 42: 615-629, 1937.

Sorokin, Pitrim and C. Q. Berger. *Time Budgets of Human Behavior,* Cambridge, Massachusetts. Harvard University Press, 1939.

Waller, Willard Walter. *The Family, A Dynamic Interpretation,* Revised by Reuben Hill, New York: Holt, Rinehart and Company, 1951.

Wever, R. A. *The Circadian System of Man: Results of Experiments Under Temporal Isolation,* New York: Springer-Verlag, 1979.

Wilkinsin, R. T., and R. S. Edwards. "Stable Hours and Varied Work as Aids to Efficiency," *Psychonomic Science,* 13 (4): 205-206, 1968.

Wilson, E. O. *Sociobiology: The New Synthesis,* Cambridge, Massachusetts. Harvard University Press, 1975.

# TACIT ENVIRONMENTAL INTERACTIONS

By Walter Schaer

**Summary**

The current socioenvironmental crisis drives a creative minority of people to a lifestyle of voluntary simplicity. According to a new theory of "social thermodynamics," this fluctuation between mass and minority can trigger a shift to a higher order of reality. In this transformation, paranormal phenomena have to be dealt with by the social and design sciences so that the process of change does not lead to total destruction, but through a creative disintegration of the old, to a saner humanity of the new, in social partnership with all things.

## Designing and Sharing by People

Do you suppose
A caterpillar knows
Its future lies
In butterflies?

(Elmer Shaw)

The environmental crisis, especially the deterioration of the physical environment, is now a global fact (Commoner, 8).

The majority of people, however, are only slightly aware of the seriousness of the problem; they are confused by the two opposite and extreme views presented to the public through the media: the cheerleaders of "Happy Days Again" (Maddox, 23) and the doomsday prophets (Meadows, 26). Between the lofty politics of extreme optimism and extreme pessimism, a new realism can be discerned in the "leaderless" but highly constitutive networks of people who are establishing a new sociocultural structure (Ferguson, 16). The new emerging social system of networks is structured around the notion that our planet is a living organism; thus, the needs of the person or social group are also the needs of the planet (Roszak, 37).

Humanistic designers of such environmental constructs as chairs, houses, motorcars, or cities are aware of the ongoing transformation in people's environmental consciousness, and of the changes in their interactional behavior with industrial products (Murray, 30). In cooperation with professionals from other fields, humanistic designers are learning to create life-style options on the human scale (Schumacher, 42).

*Humanistic design* is defined as the creation of conceptual and physical environments that are responsive to the human as a unique being capable of personal and social evolution and transformation (Schaer, 40). This humanistic definition of design is valid whether it is applied to such complex "macrosystems" as cities, in which people are functioning as components of a larger system, or whether it is used for "microsystems" of consumer products, which are rather intimate extensions of their users. In the humanistic paradigm, the differences between technological macrosystems and microsystems are only to be found in the more *social* interactions in larger systems, and in the more *ergonomic* (man-machine) interactions with consumer products. Both system types (macro-micro) must have the unique human being as the creating interactional source. Furthermore, the humanistic definition of the built environment considers not only that the physical environment should enhance inner personal and social growth, but also whether the environment is built through professionals *for* the people or is made *by* the people.

Design literature shows a clear trend away from building *for* people to doing *by* people. Perhaps, this trend is following Giedion's (18) advice (made in 1948) that, "the specialized approach has to be integrated with a universal outlook. Inventions and discoveries must be integrated with their social implications." Even though, in 1955, the interest of industry was mainly concerned with increasing sales and profits, Dreyfuss (13) declared that "when a point of contact between the product and the people becomes a point of friction, then the designer has failed." Later, in 1970, during the beginning of the consumer movement, Perin (32) advocated that design should proceed *with* man in mind, because people ask now "why are (designers) so insensitive in what they put up and expect us to live with?" Papaneck (31), who considered designers to be consumer advocates, made perhaps the final critique of those designers who are tools of reckless industries or other "design authorities." He observed that most designers produce for "the ideal consumer," and thus neglect huge minority groups, such as the global poor, the disabled, women, the aged, and, we might add, people who are socioenvironmentally conscious.

The conscious change of the design view from that of making the environment *for* people to helping users to design, plan and build *by* themselves, was suggested by representatives of the social sciences. One of these was Sommer (44), who wrote that "users of the environment must be more than consumers—they must be the creators and participants in decisions that affect them."

Whether people create things by themselves or participate in the design decisions with professionals, the results and solutions are anticipatory

at the human scale. Thus they give the user the pragmatic and sensual feeling of an organic connection with the artifact and his natural setting.

The human scale of things implies neither smallness or bigness, neither personalized nor industrialized design and production. A human scale is reached if the physical outer reality can be shaped by mature persons (or by a social group) to correspond with their inner reality and self-actualizing processes. If a person designs and builds his own chair, perhaps with the help of a professional designer, then no problem arises between the manifold person-thing interactions. Although most consumers cannot build mass-produced articles by themselves, personalized manufacturing and service are possible through the advanced use of information machines. Branscomb (2) said, "with the computer, manufacturers may for the first time make articles on a mass basis, yet have each fit the specific requirements of the intended end user . . ." For example, ". . . local computers can take detailed measurements of a person's foot and communicate the data along with style preference to the factory. Then an individually fitted shoe can be made at mass production prices."

Many designers are licensed in order to protect the public from harmful artifacts. This, however, makes sense only in respect to single objects, such as a building or a bridge, where one professional can be responsible for its safe structure. On the other hand, industrially designed and mass-produced objects involve many disciplines and different professionals, such as industrial designers, product engineers, economists, and human factors specialists, all of whom have a partial responsibility with nobody licensed for the whole. Here, the impact of a faulty product upon society is tremendous, as our socio-environmental disaster proves. Consequently, it is not the licensing of the individual professional that is of importance, but the licensing and approval of the product itself before it reaches the consumer market. The social approval of a mass-produced product for use could be an easy process (similar to our court system) where citizens would serve, together with independent interdisciplinary professionals, on product approval councils, judging products submitted to them by industry.

The question of the human scale, however, still persists as one of consumer dependence, as long as industry operates on a one-sided profit ethic instead of a personal and social growth ethic. Sooner or later, industry will learn that "profit" depends more and more on the consumer's product acceptance. One example of such recognition is the trend toward the "personalization" of appliances, such as the development from the big radios in the home to the pocket transistor radio. The sociopolitical transforming impact of the transistor radio could be witnessed in the Middle East countries, in particular, in recent years. Even more dramatic is the personalization of the clumsy electronic computer to the

transportable pocket-size information sheet. In the last 15 years, the power of computers has increased 10,000-fold, while their purchasing price has decreased 100,000-fold. The "intelligent" devices are forcing at least two basic questions upon man: first, what type of consciousness is left for humans?, and second, how can the users of these electronic "partners" have control over their design, production, distribution, and their probable disappearance from the market? History teaches us of many complex civilizations which disappeared for no apparent reason. Perhaps the time has come for us to think about post-electronic realities and of what leads to them.

A study made by the social economist, Mitchell (28), discloses a shift in consumer values and lifestyles which might have a dramatic economic and social impact on the structure of industrial nations. The study indicated that by 1990, 25 percent of the U.S. population will be consumers with individualistic buying patterns, rather than the present conformist. Socially conscious consumers embrace a "spaceship-earth" philosophy plus the socially responsible "voluntary simplicity" life pattern. The researcher forecasts a possible confrontation between these "inner-directed" consumers with a planetary vision, and the traditional "outer-directed" groups who buy for appearances and conform to what other people think. Finally, Mitchell sees a time when these two groups may form a synthesis, becoming "integrated consumers," with a global perspective that is ecologically alert, self-actualized, and seeking for alternative ways of life.

Although Mitchell's double-hierarchy is based on Maslow's (25) hierarchical concept and Riesman's typology (36), his study also projects a transpersonal and transsocial vision toward a paradigm shift. We can already observe, as was pointed out elsewhere (39) that the inner-directed and the outer-directed people are also separated by their aesthetic behavior and possessions. The outer-directed live in a world of bad taste; the "lower class" of the outer-directed might enjoy a floorlamp made out of a hunting rifle, while the "upper class" of the outer-directed might exhibit their kitsch in a living room stuffed with art work (Dorfles, 12). The new "integrated consumer" will be more aesthetically aware. *Less* "Aesthetics," as expressed in physical form, *will be more*, with a greater demand for the authentic and natural. My own preliminary studies show that highly self-actualized persons barely consume aesthetic products from others. They do not have to see a landscape made by someone in order to "see" through a medium how beautiful it might be, because as mature persons, they have an intimate relation and a direct insight into anything they experience or imagine. In such an aesthetic response, as an existential partner with everything of the environment, no second-hand information is needed. At present, only a few are at this

point of *transpersonal aesthetics,* but the vibrations toward it are becoming visible in many movements of self-awareness.

Many of the social movements and conceptual networks—such as cooperative enterprises, self-help groups, bartering, resource sharing, consumerism, communal design workshops, soft energy advocates, holistic health and illness-prevention alliances, alternative technology groups—originate in that societally conscious minority segment of the industrial population who design, build, and share a new, holistic, uncluttered lifestyle. These movements for change are in response to inflexible attitudes of the dominant institutions and values of the Western industrial societies (Long, 22).

### Paradigm Change through Crisis

Walk by the thread of the image
To its living source.
(Kenneth Demarest)

In essence, the current consumer revolt movements are more than just a reaction against a world that is preplanned, prepackaged, polluted, commercialized, and oversold to people; a world without real alternatives, a world that expects everybody to respond like Pavlov's dogs or Skinner's pigeons to predigested experiences. The varied consumer movements are part of a *basic evolutionary change* in people's experiential awareness of themselves in interaction with their daily environment. This awareness suggests that the present static reality of *structures* of materialistic things is one-sided and a dead end in itself; it must give way to *processes* of an expanded consciousness of interactional change. Even though these human potential movements are emerging in the local confines of the industrialized nations, the objectives of this new perspective are global in scope, and all of these movements have the characteristics of a paradigm shift in the making (Kuhn, 21).

This new flow of awareness is indeed a grand "design for evolution," as Jantsch (20) called the emerging new paradigm indicating far-reaching consequences for all human endeavors. Thus, the once-conditioned consumer of designs imposed upon him becomes, himself, a conscious designer and critic of the consumed in a transformational process.

In consideration of the environmental symptoms signaling personal and social stresses, we must agree with Chardin (5) that this, our time, is not just another turning point in the history of humankind, but that we are indeed advancing on a rising spiral toward a sudden shift of enlarged consciousness. As Chardin and Kuhn explained, the paradigm shift will be sudden, not unlike the way a visual pattern changes its Gestalt in a sudden shift of figure-ground relationship, a phenomenon well known to

designers (Gibson, 17). Once you can see the new configuration, you cannot "unsee" it. Such alternative perceptions seem to occur in response to an observer's tacit knowledge and to his brain's evolutionary thrust to the perception that there *exists* another Design Gestalt. Generalized then, an "inner" crisis and an "outer" alternative seem to trigger the perceptual shift from an old to a new reality. Thus, the shift from one paradigm to another is based on perturbations and stresses of old patterns, leading to sudden perceiving, valuing, creating, and interacting with a new reality.

Our environmental crisis, which reflects our psychosocial disturbances supported by additional economic, political, military and educational insanities, is now reaching a configuration ready for an appropriate shift.

This multifaceted chaotic environmental structure is the proper trigger to create a new social system, as described by Prigogine's (35) new theory of *dissipative structures.* Prigogine, a physical chemist and mystic who, in 1977, received the Nobel Prize in chemistry, has actually proved, with the traditional scientific methodology, what Eastern philosophers and Western sages, with their perennial wisdom, knew all along, namely that, "the whole cosmos is involved in a continual dance of creation and destruction" (Capra, 7), i.e., that order emerges because of disorder. Roszak, anticipating sick technocratic culture and its impending renewal, talked of the "creative disintegration of industrial society." The collapse of the dominant but sick social system is not a catastrophic breakdown, but a necessary disintegration. It is creative because it gives birth to a higher structure of order. However, the transformation can have catastrophic consequences, if the resistance of the collapsing system shows characteristics of stubborn stability and equilibrium. This sounds paradoxical, because we have been conditioned to believe that stability, not instability, is the key to survival. However, history shows us that prolonged stable sociocultural systems that remain without change (that is, without energy input in the form of new ideas) lead to decadence and collapse.

Let us now look at the new theory of dissipative structures which is a model of how chaos transforms into new creations at a higher level. The second law of thermodynamics states that quasi-closed orderly systems can only change toward greater disorder, whereby entropy is its measure in linear and irreversible time. Accordingly, the most probable state of the universe is interpreted as tending toward an equal distribution of events and elements in collision and chaos with each other.

Cybernetics (Wiener, 47) tried to show counteracting measures against entropic processes, with correcting negative feedback loops that keep systems in a steady-state equilibrium. This, of course, is a very

commendable approach in technology, because it would be very uncomfortable if our motorcar should suddenly disintegrate at high speed. However, the maintenance of an equilibrium state in one's personality would mean psychological death, and correspondingly, imposed stability in social institutions leads to dictatorial structures. Since the "laws of evolution" seem to require change, sociocultural and other systems under forced stabilization must explode and disintegrate without hope of renewal.

Thus, systems must be open to new information/ideas/energy, which, in turn, will change what existed before. The function of positive feedback is to amplify change agents so that a system can graduate to a higher level of existence. Here we must infer that technology on the whole is a powerful change agent using positive (runaway) feedback loops as one invention leads to another. The individual technical artifact, however, has a temporarily built-in (stable) negative feedback loop.

The traditional emphasis is on the entropic view, i.e., the perspective, that only stabilitiy is "good," and fluctuation is always "bad." This view is psychosocially deeply ingrained, as is evident in such judgments as that of the "runaway kid" from his family, while in reality, he might be the more creative one, who is running away from a rotten group. The myth of stability also found acceptance in information aesthetics (Bense, 1) through Shannon's (43) selective-information concept. According to Shannon, aesthetic environmental processes follow physical sign processes; that is, every bit of information in a message-structure is supposed to behave independently of the whole in a chaotic and most probable state. Thus, the most entropic (chaotic) state of a system should have no (negentropic) information and no creative potential. This would indicate that the interaction of elements within a most probable random structure is banal, uncreative, and ever-decaying toward increasing disorder. At this point, we have to remember that *information* in this context is considered the measure of order, and *entropy* the measure of disorder.

Since all human activities use information processes, and since the Western world has interpreted entropic processes as being a natural disaster without any hope of ever transforming into order, one can see that such "bad" characteristics of nature contributed to the alienation of rational man from his "dangerous" natural environment.

Nevertheless, a paradox remained, concerning the "secret of life" in growth and evolution, which are evidently negative entropic processes tending toward ever-higher order in spite of universal decay. The introduction of Maxwell's "demon" (a hypothetical personage invented by the nineteenth-century physicist with order-creating functions) in several forms, answered the question of how order comes from disorder, at least in local situations. Even though the demon, through his cognitive function,

was able to defer the second law, he consumed information-energy and thus contributed to the overall entropic process.

Therefore the basic question was unanswered, namely, that if the universe is moving from a state of order (life) to a state of disorder (death), how did it get ordered in the first place? Well, we might remember the old wisdom of all cultures, that humans are not separate from the earth, that the psychic world is mirrored in the material works, and vice versa. Here then, enters Prigogine's theory of dissipative structures and Thom's (46) catastrophe theory. Neither of these researchers were interested in the analysis of smooth, continuous, and quantitative changes of events, but rather in sudden processes, such as the abrupt bursting of a bubble, the explosion of a social upheaval, the sudden creative insight, or the shift from a caterpillar to a butterfly. Thom, a mathematician, focused not on the quantitative stability of stable states, but on the qualitative stability of change.

The catastrophe theory is especially useful to designers because Thom uses visual topological graphs with multi-dimensional parameters for analyzing and "predicting" catastrophic changes in systems.

Prigogine and Thom found that any system under stress fluctuates and escapes from its old dissipating structure through a self-organizing system into a new and higher coherence. Dissipative structures are therefore giant fluctuations of systems experiencing stress and non-equilibrium. If entropy production in a system becomes sufficiently high (e.g., socioenvironmental deterioration, or disintegration of a caterpillar), then the system tries to maintain its qualitative capability for energy-information exchange with the appropriate environment by switching suddenly to a new state of existence. That is, through fluctuations of the old system, a new order emerges which is contradictory to the classical interpretation of the second law of thermodynamics. New order is created out of disorder, not because of any "demon," but because the transformational process vibrates in a self-organizing and self-creating mode.

Dissipative structures, characterized by a high degree of qualitative interaction exchange with their environment, appear when a system becomes unfit for survival. A conscious minority can then cause a shift in a social institution that is no longer appropriate for personal and collective growth and evolution. The crucial point here is that life, growth, and evolution are not an improbable oscillation in an entropic process, but a natural interaction of all things on an ever-ascending spiral toward higher levels of existence and consciousness. The shifts from a low order to a higher order are sudden at the human scale. As the old inappropriate system behaves more stiffly and resistively, the more violent and catastrophic the transformation has to be. It is thus up to the

individual and to society to determine the way an unavoidable change will proceed. Indeed, it is a matter of experiential design awareness.

We should now become aware that we live on an interdependent planetary sphere, that indicates a material, finite state through its roundness. At the same time, the sphere is a sign of concentrated consciousness, ". . . rising upstream against the flow of entropy . . ." as Chardin (5) experienced.

The key concern for designers of the physical environment should be to develop artifacts that are flexible enough to accommodate the changing needs of people in their destiny of social and psychic growth (50).

**Design Implications of Paranormal Signs**

The unexpected and the
incredible belong in this world.
Only then is life whole.
(C. G. Jung)

The Buddhist recommendation to build houses out of wood and not stones has its practical and metaphysical values. A house made of wood can be flexible and responsive to the changing needs of its occupants. The wood's relatively fast decay—and thus, the constant upkeep of the house, including the continuous planting of trees—reminds the users, at their own human scale, of the changes which operate throughout all levels of the universe. However, the Western world has managed to turn this wisdom around. Instead of adapting the physical environment to man, people are expected and educationally conditioned to become subjugated by material things (51). Thus, the two main needs of a person, for self-actualization and for interaction with other people and the environment, are reduced to indulgence in gadgetry. As Ellul (15) observed, technology has "become an end-in-itself, to which men must adapt themselves" (52).

With the help of technology, man has partly liberated himself from nature, but at the same time, this freedom brought new limitations and dependence on artifacts.

Look, for example, at what happens with the family motorcar, which allows people to move faster and to cover greater distances, thus fulfilling a real need for flexibility. But, if the car fails (and it often does), then the whole family's schedule and thir entire lifestyle collapses into panic and neurotic behavior. A second car and a third must be bought, and of course, these multiple technical possibilities lead to more possible human impossibilities. Obviously, the increased knowledge about "natural laws" and technological "know how" have not improved man's "control" over the environment.

In fact, the motorcar is a perfect example and a tragic symbol of the distorted sociotechnological view that now governs human existence (Rothschild, 38). All societies that use high technology are very vulnerable to "logical" perturbations, because they have fixed their total transportation systems on vehicles which use non-reusable fossil fuel propellants. Such alternative-poor systems have to collapse sooner or later, because neither humanity nor the planet can afford exaggerated and prolonged stupidities of any kind. Driver strikes, street wars, exhaust pollution, noise, increased transport costs, hijacking, congestions, fuel shortages, vandalism, and driver shortages are only some of the ongoing factors pressing toward the change of an inappropriate transportation concept.

Meanwhile, the motorcar industry continues blindly on its entropic path, spending more money on advertising their monsters than on safety for people (Dubos, 14). In addition, immense economic effort is made to develop new car coatings that protect it against its own corroding effects of air pollutants while virtually no money is spent to study the car's effect on the human body. The resulting various automotive anxieties exhibited by people in reaction to such hubris against life is perhaps best expressed through the symptoms of the citizens band car radio. Although in its beginning the motorcar offered some liberation, millions of people, encapsulated in their metallic mobile boxes, are now trying (literally and symbolically) to reach out for help with their CB radios. This cry for interaction by millions around the globe, who neurotically hide behind their calling pseudonyms in a communication chatter of sixth graders, should not be ignored by designers and social scientists as a passing craze. This dissipating behavior of the CB syndrome indicates a fundamental alienation from a meaningful life, and it is a powerful sign pointing toward an impending paradigm shift, from fragmentation and conformity to autonomy and self-actualization, in "organized" cooperation with others and the total environment.

The human crisis has created great instability and mobility in society, which has led to unprecedented interactions of people and dissipative social (and technological) structures, which, in turn, are preparing the stage and sensitivity for new transforming ideas of survival. If political madmen to not use atomic power to repress the rising fluctuations from the untenable norm to a new, more humane state of life, then the transformation will not end in global entropic death (53).

Maslow (24) and Mitchell (28) showed that if people graduate to an autonomous view of life, then their values become inner-directed and transpersonal. That is, a shift in their vision of reality occurs; the level of awareness—tacit or overt—determines the level of reality construction and perception. The new framework of thought and action, at a higher level, incorporates the old reality, but as a local and limited possibility.

In such evolving levels of existence, with their intention toward unitary experiences of life, each higher level—although more psychic—is more real than the level below it, because of the higher interactional oneness of the existence.

Therefore, the awakening environmental and social transformation shows increasing *paranormal phenomena,* experienced by people who tune in and vibrate toward higher levels of design awareness (Pribram, 34). *Environmental sociology* (Gutman, 19) has served designers well in furnishing them with knowledge relating human characteristics to building design, spatial organization and social interaction, environmental impact on safety and health, and to designs as expression of social values. Most of this information is based on traditional research in behavioristic sociology, physiology and anthropometrics. This research represents the reductionistic linear method of detached observation of reality, which considers the human being as a mere reactor to impacts from the environment and society (54).

However, the holistically-growing design awareness of people gave rise to *Humanistic sociology,* a movement spearheaded by those thinkers who have connections with humanistic psychology (Coulson, 9). The new sociology is propounded by symbolic interactionists and adherents of the ethnomethodology school (Mehan, 27). This school established an image of man with certain genetic and environmental limitations, but then acts, and in acting, alters those limits. Thus, man is considered a choosing, self-responsible, complete being.

Out of this humanistic movement in sociology and psychology, and because of the disastrous consequences of focusing physical design on materials, technology and commerce, this author formulated the concept of *Humanistic Design,* which centers on man and his interactional dialogue with other humans and with physical things as an existential ensemble. Methodologically, a new research type enters here which has been defined elsewhere (41) as *design interaction research.* In this methodology, psychosocial and physical realities are synthesized, and both reductionistic and phenomenological approaches are used. This new research mode has roots in "the idea of dialogal phenomenology" (Strasser, 45). However, designers must go further, to include not only the individual in conversation with mankind, but also the two in partnership with their physical environment.

Already, the humanistic definitions of design and sociology point toward realities beyond the traditional, scientific, physical world to psychosocial reality fields far beyond the present fragmented sociological level (Canter, 6). These levels, as yet perceived only by a minority, are paranormal, metaphysical, and phenomenological, because they are hidden and thus occult to the present paradigmatic vision of the majority

of people, as in Plato's allegory of The Cave. According to that fable, men lived in the cave and took the shadows, cast on the wall by the light coming from behind them, to be the only reality. Any reality outside their cave-paradigm was to these men paranormal.

Paranormal phenomena in the man-environment interaction, based on extrasensory perception (ESP) and reality construction by individuals and groups (technical UFO projections), are not dramatically increasing (48). The reality of strange events cannot be ignored for at least two reasons. First, such new experiences have to be considered as technosocial change agents, causing instability of the obsolete paradigm system, and thus invoking transformational shock. Second, ESP-information is now interfering with man-machine interactions because of its different time/space/motion framework.

The traditional man-machine interface works with the notion that both man and machine interpret reality through signs which denote a given phenomenon. That is, a sign stands for something else; it is communicated by a medium or vehicle (air, paper), thus making the dialogue between man and machine possible (Morris, 29). If a machine operator developes ESP characteristics, then the communication with the machine is disturbed, because in "extrasensory existence" (in which the operator momentarily might live) such frames of reference as past, present, and future become instant receptivity. The machine operator, in an ESP situation, becomes the phenomenon. Thus, the sign, the sign-vehicle, and the designatum (i.e., that which is referred to) form a synergistic, one reality. In fact, it seems, as experienced by the writer (in remote viewing), that the total absence of signs is a prerequisite for direct insights into reality itself. Many unexplained technological accidents of today might be the results of experiential "frequency" disturbances between men and machines (55). In this context, esoteric information on holistic existence, in which time essentiates to "receptivity," space transforms into "conductivity," and motion fluctuates as "frequency," establishes a new sense of being (56).

The danger of nuclear power plants lies not only in that they can be operated only under secret dictatorships, that nuclear physics is dangerously based on obsolete theories of entropy and vectorial time, or that nuclear control centers are ergonomically disastrous. A greater potential danger is that paranormal perceptions by plant operators, triggered by conscious or unconscious existential stress, interfere with the sign display of the information machines. Such "interferential relationships" seem to be especially the case in man's correspondence with electronic equipment, because of the need for reduced (to the speed of light) response time to the machine by the operator, whose "experiential mind" might at a point of emergency dwell beyond clock time.

We also have to consider possible interference patterns in communication betweeen psychically advanced operators of classical machines, as many unsolved automobile and aeroplane accidents indicate. Even the military is nervously searching for non-traditional solutions to command-control problems (4). The results of the latest computerized war game was that the "sophisticated" Western (NATO) war machinery could not beat the more "crude" resources of the Warsaw Pact nations. Naturally, the problem is one of complexity; that is, the military paradigm fluctuates out of control, and is in a state of creative instability, ready for a drastic change. Of course, complexity and instability for the military is equal to chaos, thus they resist any "positive" change.

Thus, NATO seems to have manipulated itself into a double-bind. The dissipative, computerized commando-systems of the West can only beat the "Russians" centralized systems if the West establishes omnipotent dictatorships. However, if "democratic" social principles do not allow this, then one may lose a war or change the military paradigm toward a higher holistic vision for humankind. Connected with this dilemma is the fact that present war-machines are controlled by both artificial and human intelligence; that is, the man-machine interaction represents higher frequencies of consciousness than the pre-computer killing machines. Now, at this "advanced" level of consciousness, the military has difficulty finding "trained" people because those who qualify refuse to work, as their level of awareness has been transformed far beyond the entropic limitations of the military mind. We might well remember here that fluctuations, change, fluidity, and indeterminacy make an experience creative and unpredictable, which is the prime feature of intelligence. Thus, not the well adapted people will easily fluctuate through a paradigm shift to a higher level of awareness and existence, but the adaptable and unattached ones. There is hope for a military-free world. The more we dissipate with people and things, the more we have to accept them as partners in a meaningful process; i.e., you cannot love a cat and kill her, too (57).

Paranormal phenomena, the manifestations of as-yet-hidden realities and transformational states of consciousness, are probably further "explainable" through the holographic model of reality postulated by the neuropsychologist Pribram (34) and others. The holographic concept suggests that memory is not located in any specific area of the brain, but, as a structure of relationships, the brain creates, perceives, and remembers by retaining and decoding interference patterns in a holistic energy field with the environment. Thus, the holographic world model relates brain-mind to both living and non-living systems.

Furthermore, the decoding of new and higher realities happens in a transformed frame of time, space, and motion. If such a change to

higher consciousness takes place, then the concept of "normal" and "paranormal" disappears. We now discover the urgent need for further inquiry into what reported paranormal experiences imply in design and social terms. For sure, such phenomena cannot be produced under the present strict, reductionistic, clinical laboratory conditions operating in the present scientific time-space concept.

It is not surprising that space experts (3) speculate that we have reached the "end" of space exploration, with present technology and present consciousness. Work with ion-engines for space rockets points to the use of light particles to approximate speeds of light. The "explosion chambers" of such "photon-reactors" are composed of electromagnetic fields. The result, then, is an invisible "machine" consisting of a fundamental *interaction*, as the photon is the quantum of its own electromagnetic field. At this point of space exploration, man's material body becomes a clumsy hindrance to operating in expanded space-time dimensions.

A holographic paradigm seems needed, in which we may discover that the universe vibrates here and now, everywhere. An advanced technology for experiencing the universe may not be composed of exploratory material hardware (which is a projection of mechanistic minds), but of energetically "imploring" and amplifying software, capable of tuning into realities which are already "here" and not "out there." Since all technology is the formative result of human consciousness and is thus metaconceptual, it follows that an *"Attuned Technology"* can only be developed by minds who have reached a higher level of interactional awareness than those who created present technology (58).

The current electronic techniques are probably an intermediate stage toward a transelectronic epoch. The emerging attuned technology, following holographic principles, cannot be "objectified" like traditional objects; for example, like a spacecraft sent into deep space in the hope someone would find it, and perhaps establish interactions with its originators. Attuned technology will be an interactional part of mind and cosmos; that is, until the evolutioanry epoch arrives, when consciousness will need no media whatsoever for understanding and action.

Intermediate technology, from classical electronics to attuned technology (besides advanced computers) includes such information machines and techniques as biofeedback devices, sensory deprivation facilities, thought photography, psychotronic generators, neuropsychological equipment, psychosomatic recorders, matter-energy transformers, and states of consciousness-altering devices.

Looking at our socioenvironmental problems, we see the time to have arrived to view the world as one web of interactions. Even traditional systems theory has prepared the way, in considering that the environment of a system is not only influencing the system's performance, but a

system is always embedded in a larger system, showing clearly that there are no isolated elements in any system (Churchman, 10).

Whether we continue our lives as usual (as many believe we shall), or whether we evolve through a creative transformation to something better (as a creative minority knows must happen), an intact physical environment is essential for any type of survival. Whatever future mode of living is chosen, the decision will be a moral and an ethical one. The present ethical environmental rules operating in industrial societies are mainly defense systems against the environment. Thus the present ethic is an entropic, *materialistic growth ethic.* Through this ethic, society has failed to tune in to the environment and to grow with it holistically. Ethics in a transformed social structure will not be a dualistic battlefield between "inner" and "outer" conditions, but a convivant "organism" of growth and evolution. The new morality will not be imposed by belief systems, but it will be lived in changing and ascending situations, in coresponse with all things. The new ethics will be a negentropic *psychic growth ethic* (59).

Such a metaphysical growth ethic will also fundamentally change the attitudes in socioenvironmental planning. Present environmental design and planning is based on the entropic model, the view that the universe is running down to total chaos. Therefore planning in varied forms (strategic, operational, or normative) is founded on future projections of what ought, can, and will be done. Then, clever controlling systems with negative feedback will be devised to insure that the plan is followed by future generations of people (Dober, 11). No wonder such endeavors must fail, because such planning ignores the living evolutionary laws of change (60). The present socioenvironmental perturbations are much greater than industrial society can control; thus, a change to a saner structure, initiated by a creative minority, has to occur. It is up to all of us whether the unavoidable transformation will end in total destruction, or in the creation of worlds based on the recognition of one's connectedness with life and nature.

Planning and designing must now become based on models which can expect the unexpected, because the rules of life and creation are tacit and mystic in their mode of becoming and being. If the social and design sciences accept the concept of evolutionary change, and recognize tacit knowledge (Polanyi, 33) as part of their search to deal with paranormal phenomena, then, indeed, we can lay the groundwork for a human growth-oriented, decentralist, and globally connected humanity.

## References and Notes


1. Bense, Max. *Aesthetica.* Stuttgart: Deutsche Verlags-Anstalt, 1954.
2. Branscomb, Lewis B. "Personalized Manufacturing," *Science* Jan. 12, 1979.
3. Braun, Wernher Von. "The Space Program and Education." Address to the General Session of the National Association of Secondary School Principals, Houston, 1971.
4. Broad, W. J. "Philosophers at the Pentagon," *Science,* Oct. 24, 1980.
5. Chardin, Teilhard de. *The Phenomenon of Man.* New York: Harper Torch Books, 1965.
6. Canter, David (ed.). *Environmental Interaction.* New York: Int. Universities Press, 1975.
7. Capra, Fritjof. *The Tao of Physics.* Boulder: Shambhala, 1975.
8. Commoner, Barry. *The Closing Circle.* New York: Knopf, 1972.
9. Coulson, W., and C. Rogers. *Man and the Science of Man.* Columbus: Merrill, 1968.
10. Churchman, C. W. *The Systems Approach.* New York: Delta Books, 1968.
11. Dober, Richard P. *Environmental Design.* New York: Van Nostrand Reinhold, 1969.
12. Dorfles, Gillo. *Kitsch.* New York: Universe Books, 1970.
13. Dreyfuss, Henry. *Designing for People.* New York: Simon and Schuster, 1955.
14. Dubos, Rene. *So Human an Animal.* New York: Ch. Scribners Sons, 1968.
15. Ellul, Jacques. *The Technological Society.* New York: Vintage Books, 1964.
16. Ferguson, M. *The Aquarian Conspiracy.* Los Angeles: Tarcher, 1980.
17. Gibson, James J. *The Senses Considered as Perceptual Systems.* Boston: H. Mifflin, 1966.
18. Giedion, S. *Mechanization Takes Command.* New York: Oxford University Press, 1948.
19. Gutman, Robert (ed.). *People and Building.* New York: Basic Books, 1972.
20. Jantsch, Erich. *Design for Evolution.* New York: George Braziller, 1975.
21. Kuhn, Thomas S. *The Structure of Scientific Revolutions.* Chicago: University of Chicago Press, 1970.
22. Long, F. A., and A. Oleson (eds.). *Appropriate Technology and Social Values.* Cambridge: Harper and Row, 1980.
23. Maddox, J. *The Doomsday Syndrome.* New York: McGraw-Hill, 1972.
24. Maslow, Abraham H. *The Farther Reaches of Human Nature.* New York: The Viking Press, 1971.
25. Maslow, Abraham H. *Motivation and Personality.* New York: Harper and Row, 1972.
26. Meadows, Donella H., et. al. *The Limits to Growth.* New York: University Books, 1972.

27. Mehan, H. and H. Wood. *The Reality of Ethnomethodology.* New York: Wiley and Sons, 1975.

28. Mitchell, Arnold. *Changing Consumer Values.* Menlo Park: SRI International, 1979.

29. Morris, Charles W. *Foundations of the Theory of Signs.* Chicago: The University of Chicago Press, 1970.

30. Murray, B. B. (ed.). *Consumerism.* Pacific Palisades: Goodyear, 1973.

31. Papaneck, Victor. *Design for the Real World.* New York: Pantheon Books, 1972.

32. Perin, Constance. *With Man in Mind.* Cambridge: MIT Press, 1970.

33. Polanyi, Michael. *The Tacit Dimension.* Garden City: Anchor, 1966,

34. Pribram, Karl H. *Languages of the Brain.* Englewood Cliffs: Prentice-Hall, 1971.

35. Prigogine, Ilya, et. al. "Thermodynamics of Evolution." *Physics Today*, 25, Nos. 11 and 12, 1972.

36. Riesman, David, et al. *Lonely Crowd* (rev. ed.). New Haven: Yale University Press, 1969.

37. Roszak, Theo. *Person/Planet.* Garden City: Anchor Press, 1978.

38. Rothschild, Emma. *Paradise Lost.* New York: Vintage Books, 1973.

39. Schaer, Walter. *Experiential Design Awareness* (LD00086). Ann Arbor and London: University Microfilms International, 1976.

40. Schaer, Walter. "Productivity and the Human Scale." International Council of Societies of Industrial Design. *Proceedings of the XI Congress.* Mexico City, Mexico, Oct. 12-19, 1979.

41. Schaer, Walter. "Synthesizing Physical and Humanistic Realities." Human Factors Society and Industrial Designers Society. *Proceedings of Second National Symposium.* Tufts University, Medford, Mass., May 28-30, 1980.

42. Schumacher, E. F. *Small is Beautiful.* New York: Harper and Row, 1973.

43. Shannon, C. E. and W. Weaver. *The Mathematical Theory of Communication.* Urbana: University of Illinois Press, 1949.

44. Sommer, R. *Design Awareness.* San Francisco: Rinehart Press, 1972.

45. Strasser, Stephan. *The Idea of Dialogal Phenomenology.* Pittsburgh: Duquesne University Press, 1969.

46. Thom, R. *Structural Stability and Morphogenesis.* Reading: Benjamin, 1975.

47. Wiener, Norbert. *Cybernetics.* New York: Wiley and Sons, 1948.

48. White J. and S. Krippner (eds.). *Future Science.* Garden City: Anchor, 1977.

49. This article is written in the traditional style, thus, man also means wo/man, and both as a species, et cetera.

50. Some writers, such as J. Rifkin (*Entropy,* Viking, 1980), suggested that theories of dissipative structures attempt to provide a rationalization for material growth, genetic engineering, dehumanizing technologies, et cetera.

Certainly, such rationalizations are possible, but only from the view of Rifkin's entropy paradigm in which absolutely nothing can be negatively entropic. Therefore, an absolute entropic vision must, out of fear, produce pseudo-creativity based on the illusion of "renewables." However, Prigogine's theory demonstrates a "natural" dialectic counter-entropic process, which is evolutionary and thus points the way out from a "materially" bound life consciousness toward an "energistic" existence beyond the low frequency oscillation of matter with its dominant entropic law. The material world is indeed "absolute" entropic, but nothing should keep us vibrating (existing) in it and at the same time tune into a more creative, negentropic, reality. Entropy is only one special partitioning type of the cosmic process, recognizable by "rational man;" negentropy, however, is experienced confluentially only from a holistic consciousness.

51. The American university is an anachronism in relation to the self-actualizing state of faculty and students today. The traditional university structure is an extension of the high school and its pedagogic system suitable for children. The university unfortunately never adopted andragogy, the educational concept for self-actualizing adults (M. Knowles, *The Adult Learner.* Houston: Gulf, 1978). In addition, the university administration is modeled after the centralized hierarchy of the church and the military: on top the cardinals and generals, below the sheep and the soldiers. There is no equal information-power flow in the non-participatory pyramidal hierarchy. This is the real tragedy of the university, not economics. But changes have taken place: the "nontraditional universities" are already demonstrating the future toward a more individualized and pluralistic decentralization of learning. Peter F. Drucker, the management economist, stated in a recent article appearing in the *Wall Street Journal*: "Demand for education is going up, not down. What is going down, and fairly fast, is demand for traditional schools."

52. Once a person "manipulates" time, there is actually no difference in designing a chair from idea through drawing and building it out of wood, and the instant ideation plus actualization of a chair in one's imaginary mind. People under hypnosis constitute and act in such "imaginary" worlds; or, one might think of advanced physics, where new realities are constituted without any trace of materiality. The creative process, in both the "imaginary" and the "actualized" worlds, is the same, only the one is immediate and the other mediate at different levels of existence. Living in "voluntary simplicity," for example, is more than just a "lifestyle." It is a conscious manifestation toward a dematerialized "imaginary" existence.
A "primitive mind," in an affluent society, needs more consumer goods than does a self-actualized person. As more material goods are acquired, less time can be spent per gadget to use it. "In other words, economic growth entails a general increase in the scarcity of time." (S.B. Linder, *The Harried Leisure Class.* Columbia Press, 1970). Here, again, we recognize a "dissipative structure" (Prigogine, 35) which either leads a person (or society) to a neurotic breakdown, or to a creative realization of the materialistic trap, and, thus, to a transformative stage beyond goods and sidereal time. An anthology on "the art of voluntary poverty" can be found in: Goldian Vanden Broeck, *Less is More,* (New York: Harper-Colophon, 1978).

53. Chaos is a state of potentiality, thus awareness of potential alternatives can be blocked or enhanced by physical designs. Jantsch (20) sees the levels of awareness as evolving from a "rational separation between subject and

object," to a "mythological feedback relation" between subject and object, followed by an "evolutionary union" of subject and object. The designer of the physical environment can observe these evolutionary phases of the subject-object relationship in that individuals, and social groups, initially seem to "identify with things," followed by "identification with personality," and finally actualizing an "identification with consciousness." In other words, the physical object "disappears" for the self-actualized and trans-personalizing user; designs become increasingly "invisible' as physical facilities in a dominant network of metaphysical relationships. At present, most consumers identify themselves still with things (goods). Slater observed, thus, that "Our psychic excretions . . . show an annoying tendency to become part of our real environment, so that we are forced to consume our own psychic wastes in physical form." (Philip Slater, *Earthwalk.* New York: Doubleday, 1974).

54. The acquisition of knowledge, through both traditional research modes—the reductionistic and phenomenological—ends at the level of the "union of object and subject." An experiential "analysis," however, might be possible through an aesthetic interpretation of interference patterns (interpenetration of wavefronts as in holography) similar as if we are getting "good vibrations" from a person or an environmental situation. Such researchers, however, will only be "successful" if they abandon Gurus and belief systems, and become truly "it" (Carl G. Jung, *Man and his Symbols.* New York: Doubleday, 1964). At this point, the researcher must accept that reality operates at different levels of existence (or consciousness), and that the materialistic level (the domain of traditional scientific concern) is the "lowest" level which follows local thermodynamic laws. It might be wise, in view of impressive paranormal signs, to study the elaborate models of the seven reality levels as postulated by mystics (A. E. Powell, *The Etheric Double.* London: Theosophical Publishing House, 1969).

55. In addition to interference communications between man and machine, there is also growing evidence (48) that the human mind (high frequency) can influence matter (low atomic frequencies). High Technology (electronic computers) seem especially vulnerable to the mind because of their linear digital composition. Interference-shielding of machines from human thought (mind) is probably not possible (shielding experiments in telepathy failed) because at frequencies beyond the speed of light space is non-existent, that is: "mind" is not "transmitted." It exists conductively and "holographic" everywhere. Any attempt to find such media as "waves" or "particles" in telepathy, for example, will not succeed, because the key seems to lay in an "attunement relationship" of "frequency patterns."

56. That the essence of time is "receptivity" can be demonstrated through holography. A moving object, during recording, does not appear blurred, as in normal photography, but shows less image brightness; that is, the higher the frequency of the photographed object (from a stone to hot air) the darker (invisible) the image. (J. Benthall, *Science and Technology in Art Today.* Praeger, 1972).

57. All nations around the world are still looking for their "enemies" somewhere outside their physical boundaries (and build madly unproductive war machines). Simultaneously, the majority of people entertain themselves with illusory "star wars," and mass-prayers for a savior descending out of the heavens to rescue them from their stupidities. How much "chaotic crisis" is needed

until a "critical mass" of people recognize finally that "there is nothing out there," neither to attack nor to expect help from. We are the world, our consciousness is the world, and if we do not change, nothing will. The "new age," it seems, will not have its ideas brought by Gurus, Kings, Presidents, or any other professing leader such as we know today. The future will have to be carried entirely my Man himself, responsible for his own existence.

58. Solar energy technologies are the "wisest and most economic energy options" as reported by the Solar Lobby (Washington, D.C.). The human scale in solar energy is very obvious: Megastructures in outer space, which collect sunlight and beam it down to earth, makes people dependent on whoever owns and operates such solar industries (the same is true for big solar energy structures on earth). As it is with the nuclear industry, big solar industries are antidemocratic because the individual person and the family can be easily manipulated by it. Therefore, solar energy at the democratic human scale must find solutions for the individual house or for small clusters of dwellings. (In fact, renewable resources already provide more energy than does nuclear power). Present governments of different political belief systems, however, do not support "individualizing" small solar energy projects, because of fear of losing control over people. Political solar energy issues are similar to organized religion: imagine what would happen if every person had a "direct line" to the gods!

59. In the traditional ethic view on technical artifacts, the basic qualifying question was: Does it sell and make profit? The new, "negentropic," ethic asks, however, on a hierarchical evaluation scale:
    1. The *humane level.* Does the object enhance the self-actualization and transpersonal social needs? (Quality of life, ecology, social responsibility, environmental symbolic aesthetics, ecotechnologies).
    2. The *object level.* Are the anthropometrics correct as related to operational aesthetics? (Object language, accident safety, performance flexibility).
    3. The *production level.* Does the object adhere to human technical and production aspects? (Appropriate commercial profit, labor satisfaction).

    The total evaluation of an object by the humanistic designer starts at the humane level. If an object does not qualify at one successive level, there is no reason to discuss or justify the next lower level(s).

60. "In some sense all knowledge is ultimately subjective, since the root of all experience is consciousness," said Harman (in reference 48). Modern epistemology is thus confronted with the realization that the two forms of knowing (scientific facts "about" things and the phenomenological "identification" with things) must, dialectically, lead to a form of synthesis. However, epistemology here runs into a fundamental problem: Since a theory, which investigates the nature of knowledge, must by necessity use a metalanguage, it must operate at a higher level of consciousness than the level of knowledge it describes. The "synthesis" of the two modes of knowledge ("rational" and "intuitive") seem to lay beyond any absolute semiotic models and metaphors of reality. Thus, epistemology must ready itself for a paradigm shift. "Reality is only a description, and if there are other realities, there must be other descriptions," said Watson, the biologist (Lyall Watson, *The Romeo Error.* New York: Dell Books, 1974). I suspect that the impossible scientific description of (as yet) paranormal phenomena is not so much a limitation of the present scientific method itself, but rather a fixation on present procedures and attitudes by researchers.